

Ramirez, Angelica

Public Comment

#4

From: Katie Davis <kdavis2468@gmail.com>
Sent: Monday, April 4, 2022 10:23 AM
To: sbcob
Cc: Jonathan Ullman; Hartmann, Joan; Williams, Das; Hart, Gregg; Wong, Garrett; Watkins, Ashley; mchiacos@cecmail.org
Subject: Sierra Club comment on April 5 BOS meeting Item #4
Attachments: SB County CAP Sierra Club Comment April 2022.pdf

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Please see attached comment on April 5 BOS meeting item #4

RE: 2015 Energy and Climate Action Plan (ECAP) Final Report and Climate Action Program Updates; **Implementation of early climate actions - SUPPORT**

Thank you,
Katie Davis
Chair, Sierra Club Los Padres Chapter

#4



PO Box 31241
Santa Barbara CA
93130-1241



April 1, 2022

Santa Barbara County Board of Supervisors
123 East Anapamu Street
Santa Barbara, CA 93101
Via email to: sbcob@countyofsb.org

Re: 2015 Energy and Climate Action Plan (ECAP) Final Report and Climate Action Program Updates; Implementation of early climate actions - SUPPORT

Dear Santa Barbara County Board of Supervisors:

Thank you for setting strong climate goals. Now we urge progress on those goals.

While we take issue with the irregular and unconventional choice to exclude stationary sources from the County's GHG inventory, we also recognize those emissions from oil production and processing have gone down. Including them would show we are doing better than reported, though we are still not doing enough to meet our climate goals.

We urge you to now take the next step and move forward with staff's recommended climate actions:

- Develop an ordinance to restrict natural gas infrastructure and increase energy efficiency performance and electric vehicle charging infrastructure for new construction and major renovations.
- Assess the feasibility of updating the Zero Net Energy Resolution to Zero Carbon for County buildings in order to design and build new buildings to be all-electric and replace or retrofit space and water heating devices and equipment in existing buildings.
- Develop a Zero Emission Vehicle Plan to strategically identify gaps, resources, projects and programs to advance use of zero emission vehicles in County operations and the community.

These tackle two of the largest emissions sectors: transportation and buildings. In terms of buildings, we recommend the County adopt a health and safety ordinance like the City of Santa Barbara, as it's effective, defensible, easy to maintain and doesn't expire. 2022 timing is good; CCCE will provide a grant to cover the work and it can be adopted along with state building code updates. The State of California, the Public Utilities Commission, Southern California Edison, PG&E, Community Choice providers, the AIA and other experts are encouraging the electrification of buildings in order to mitigate the climate, health, safety, and housing affordability crisis.

All-electric buildings lower the cost of new construction and support affordable housing. All-electric homes are cheaper to build¹ than gas-heated buildings — and they can lower monthly utility bills.² Ensuring all new construction is built without gas

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

² "The Economics of Electrifying Buildings" <https://rmi.org/insight/the-economics-of-electrifying-buildings/>

hookups helps 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 reduced construction costs on average \$5,000 for single-family homes and over \$2,000 per unit in a multi-family building.

Building all-electric will also saves 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 assets³ 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.

All-electric buildings improve air quality and public health for Santa Barbara County residents. All-electric new construction will improve indoor air quality for Santa Barbara 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 A recent 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. 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 produce nearly nine times more nitrogen oxide (NOx) emissions than gas power plants.⁹ Nitrogen oxide is a precursor to ozone and PM 2.5, two pollutants that cause asthma, lung cancer, respiratory diseases, and premature death.¹⁰ All-electric new construction is an essential step to improving air quality in Santa Barbara County and California as a whole.

³ "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>

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

¹⁰ "Health Effects of Ozone and Particle Pollution" <https://www.lung.org/our-initiatives/healthy-air/sota/health-risks/>

All-electric buildings will make Santa Barbara 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.¹¹ Many Santa Barbara County residents 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 the 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. Given the earthquake faults in California, fires exacerbated by gas pipelines after earthquakes are of significant concern. Communities with gas pipelines 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 methane leaks.

Electric appliances safe, affordable and easy to use. While inefficient electric appliances led to gas becoming more popular, innovations in electric appliances have now made electric appliances the better choice again. Induction cooking is faster, safer, more exact, more efficient, and won’t cause burns, fires or leaks. Efficient heat pump technology provides heating and cooling, and electric fireplaces are becoming the most popular choice for their affordability, ease of use and safety.¹²



Examples of all-electric construction from “A Zero Emissions All-Electric Multifamily Construction Guide” (<https://fossilfreebuildings.org/ElectricMFGuide.pdf>)

All-electric buildings are a way to do our part to meet California’s climate goals. California Executive Order B-55-18 sets a goal of achieve statewide carbon neutrality by 2045. Building electrification will play an important role in helping us meet our state’s emission-reduction goals. Electricity in Santa Barbara County is rapidly getting cleaner, with Central Coast Community Energy’s goal of 100% renewable energy by 2030. As a

¹¹ “Northern Hemisphere just had its hottest summer on record,” NOAA, September 14, 2020 <https://www.noaa.gov/news/northern-hemisphere-just-had-its-hottest-summer-on-record>

¹² “19 Types of Fireplaces for Your Home (Buying Guide)” (<https://www.homestratosphere.com/types-of-fireplaces/>)

result, shifting to electric power in our buildings dramatically lowers greenhouse gas emissions.

We can't wait. The latest United Nations IPCC report which summarizes the global scientific consensus on climate change (675 authors and 34,000 cited references) calls it, "a threat to human wellbeing and the health of the planet," that demands, "urgent action," and warns that we have, "a brief and rapidly closing window to secure a liveable future."¹³

Affordability, health and safety, emissions reductions, and market innovations are some of the reasons for the trend toward building electrification – a trend Santa Barbara County should welcome and embrace, as it will greatly benefit its residents and businesses.

Sincerely,

A handwritten signature in black ink, appearing to read 'Katie Davis', with a stylized, cursive script.

Katie Davis
Chair, Sierra Club Los Padres Chapter
Santa Barbara and Ventura Counties

¹³ IPCC Sixth Assessment Report, 2022 (<https://www.ipcc.ch/report/ar6/wg2/resources/press>)