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| <b>Project Title:</b>   | 2022 Energy Code Pre-Rulemaking   |
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*Comment Received From: Sierra Club California & Rocky Mountain Institute  
Submitted On: 12/18/2020  
Docket Number: 19-BSTD-03*

**Sierra Club CA & RMI Comments - 2022 Energy Code Proposals  
from Dec 8 Workshop**

*Additional submitted attachment is included below.*



December 18, 2020

*Via online submission*

California Energy Commission  
Dockets Office, MS-4  
1516 9th Street  
Sacramento, CA 95814-5512

**Re: Sierra Club Comments on Proposed 2022 Energy Code - Solar PV, Storage, and Heat Pump Baseline Proposals (Docket No. 19-BSTD-03)**

Dear Commissioner and Staff:

Sierra Club, on behalf of our over 500,000 members and supporters in California, appreciates the opportunity to comment on the California Energy Commission's ("CEC") 2022 Energy Code proposals specifically related to heat pump baselines that were introduced during the December 8, 2020 workshop.

Sierra Club California appreciates the work done by the CEC and staff to move the needle on building decarbonization. However, we believe that the current proposals for the 2022 Building Code are insufficient to protect our climate and reduce indoor and outdoor air pollution and health impacts caused by the pollutants emitted from our homes and buildings as a result of methane gas connections and appliances powered by methane gas.

It is unfortunate how often Californians need to remind its leaders that we are in a climate crisis. This crisis can only be solved through unprecedented, bold actions. This problem cannot be fixed at this point through incremental steps designed to reduce disruption of a status quo energy source. The Energy Commission needs to be more assertive.

**I. The current proposals fall short of the action needed to address the climate crisis and protect public health**

We appreciate the CEC's work and the proposal to set a heat pump space heating baseline for certain building types. We recognize that a significant effort has gone into these proposals.

At the workshop on December 8, CEC staff proposed to set heat pump baselines for small offices, mid- and high-rise multifamily buildings, small schools, and warehouses (office spaces only). However, these proposals fail to encourage electrification for a large portion of California's building sector. These proposals fail to include electric-preferred baselines for all

educational facilities, all multifamily buildings, and low-rise residential buildings. The Energy Commission's current proposals fall short of what California needs to reduce emissions from the buildings sector to the extent science indicates is needed.

The research and data have shown that strong building electrification policies will help the state meet its climate, health, and air quality goals.<sup>1</sup> Therefore, the 2022 Title 24 Building Code must require that all new buildings (of all types) permitted beginning in 2023 be efficient and constructed based on an all-electric baseline.

Locking in more fossil fuel infrastructure to deliver gas to homes and buildings past 2023 runs counter to achieving the state's climate targets and will drive up costs that will fall disproportionately on low-income residents. If an all-electric code is delayed until 2025, many of those buildings will not be operational until 2028 and 2029. This means at least 6 more years of polluting buildings being constructed across the state and at least \$1 billion dollars spent on new, avoidable gas infrastructure. But this also means additional years of public health impacts caused by the poor air quality impacts from gas appliances..

Notably, children living in homes with gas stoves have a 42% increased risk of experiencing asthma symptoms. Studies have shown that air quality is healthier and safer inside an all-electric home. So it is unclear to us why the Energy Commission would not take the necessary steps to make healthy homes and buildings the standard.

## **II. California is ready for for all-electric new construction**

The state has assertively addressed transitioning the electricity sectors and the transportation sectors away from fossil fuel combustion. It is now the Energy Commission's responsibility to ensure aggressive reductions in the buildings sector.

California is ready for building electrification. 70% of Californians have stated that they prefer all-electric appliances as opposed to gas appliances.<sup>2</sup> Gas free homes are becoming a standard in California. Over 40 California cities and counties - totaling 5.5 million people - have already adopted clean electric buildings codes, with more cities joining all the time. This proves there is a demand to move off of gas in favor of electric appliances.

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<sup>1</sup> As stated in E3's recent report, "Achieving Carbon Neutrality in California", aggressive building electrification is considered a "least regret" strategy to achieve our climate targets in a cost-effective manner. Energy+Environmental Economics, *Achieving Carbon Neutrality in California* (Aug. 2020), [https://ww2.arb.ca.gov/sites/default/files/2020-08/e3\\_cn\\_draft\\_report\\_aug2020.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-08/e3_cn_draft_report_aug2020.pdf); UCLA Fielding School of Public Health, "Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California | COEH - Center for Occupational & Environmental Health," [coeh.ph.ucla.edu](https://coeh.ph.ucla.edu/effects-residential-gas-appliances-indoor-and-outdoor-air-quality-and-public-health-california), April 2020, <https://coeh.ph.ucla.edu/effects-residential-gas-appliances-indoor-and-outdoor-air-quality-and-public-health-california>; Grab, et al., *California Can't Wait on All-Electric New Building Code*, RMI (July 28, 2020), <https://rmi.org/california-cant-wait-on-all-electric-new-building-code/>.

<sup>2</sup> Matt Vespa, *Californians Want to Stop Burning Gas in their Homes*, (Mar. 16 2020), <https://earthjustice.org/from-the-experts/2020-may/californians-want-to-stop-burning-gas-in-their-homes>.

The Energy Commission has reviewed and approved each of the local ordinances encouraging electrification. Many individuals have called in to support these ordinances at the Business Meetings and Workshops and urged the Energy Commission to expand this local leadership statewide.

And, yet, even with the progress our cities and counties have made and the resounding support from Californians across the state, the Energy Commission fails to create the all-electric standard that is required to avoid a patchwork approach to building decarbonization. Without a statewide all-electric policy, builders will be faced with inconsistencies and confusion as more counties shift to all-electric new construction.

### **III. Conclusion**

Sierra Club appreciates the Energy Commission's efforts to transition the building code to support electrification, but we are disappointed in the small steps the Commission has proposed for the 2022 code cycle.

If California intends to be a leader on climate policies, we need to see more aggressive action taken on a sector that is a major contributor to climate emissions and poor air quality. Research has shown the negative impacts caused by gas from our homes and buildings, yet California continues to add more gas customers than any other state.<sup>3</sup> We simply cannot avoid the worst impacts of climate change without eliminating the pollution emitted from gas appliances in our homes and buildings.

The Energy Commission has the opportunity to make a real difference on the future of new buildings in California and how much those buildings will contribute to our climate and public health problems. However, the current proposals will not make the positive impact our state needs. We urge the Commission to revise the proposals to be more aligned with the state's goals on climate, health, and air quality by including an all-electric baseline for all building types.

Sincerely,

Lauren Cullum  
Policy Advocate  
Sierra Club California

Jonny Kocher  
Associate  
Rocky Mountain Institute

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<sup>3</sup> From 2013-2017, the state added nearly 250,000 new gas customers, and in 2018 alone 75,000 new California homes were built with gas infrastructure. U.S. Energy Information Administration, *Number of Natural Gas Consumers*, [https://www.eia.gov/dnav/ng/NG\\_CONS\\_NUM\\_DCUSCA\\_A.htm](https://www.eia.gov/dnav/ng/NG_CONS_NUM_DCUSCA_A.htm); Green, et al., California Should Go All-Electric in New Construction - State's Largest Utility Agrees, RMI (June 26, 2020), <https://rmi.org/california-should-go-all-electric-in-new-construction-states-largest-utility-agrees/>.