



*Docketed in 19-BSTD-03*

February 3, 2021

David Hochschild  
 Chair  
 California Energy Commission

Andrew McAllister  
 Commissioner Assigned to 2022 Building Standards Proceeding  
 California Energy Commission

**Re: Concerns with Staff Proposal for 2022 Building Code Standards (Docket No. 19-BSTD-03)**

Chair Hochschild and Commissioner McAllister:

Since the Energy Commission began its consideration of standards for the 2022 building code cycle, well over one hundred organizations, ranging from environmental, environmental justice and public health groups, to utilities such as PG&E, to air districts and local governments, to architectural and business associations, have urged the Commission to adopt an all-electric building code. This call to action was accompanied with substantial analysis demonstrating that all-electric new construction results in significant climate, air quality and public health benefits, lowers construction costs compared to homes that continue to rely on gas, and avoids the stranded asset impacts from continuing to expand fossil fuel infrastructure with gas pipelines to new homes. The Commission has everything it needs to move forward with an all-electric building code. Yet rather than do so, Staff have proposed updates to building code requirements for low-rise residential construction that not only fall short of the all-electric baseline requested by numerous parties, but fail to even send a market signal sufficient to meaningfully transition away from fossil fuel reliance in new construction, and maintain impediments to the future replacement of gas appliances with electric alternatives. In opting for ineffectual incrementalism over meaningful action, the Staff Proposal undermines California's ability to achieve its decarbonization objectives and its critical role as a leader in climate policy. We strongly urge the Commission to substantially strengthen the Staff Proposal prior to its adoption.

The Staff Proposal presented at the January 26<sup>th</sup> workshop does not include all-electric appliances in the standard design for new residential construction. Instead, the proposal incorporates a single electric appliance - either an electric heat pump space heater ("HPSH") or a heat pump water heater ("HPWH"). However, which of these appliances is assumed in the standard building design depends on the climate zone where the building is located, and the Staff Proposal opts for the appliance that would use the *least* energy in a given climate zone. Thus, in the San Diego climate zone, the code uses a HPSH to set the performance standard instead of a HPWH, even though a typical new home in San Diego County burns between 4 and 5 times more gas for water heating than for space heating.<sup>1</sup> In taking this approach, the Staff Proposal will result in far more climate, air quality and public health impacts than one incorporating the electrification of the appliance burning the most amount of gas into building design. Moreover, because space heating in San Diego is a small fraction of building energy use, a builder can more easily trade off incremental improvements to other aspects of building performance to continue to rely on gas space heating and avoid deploying any electric appliances at all. While gas use from space and water heating is more equivalent in climate zones such as the Bay Area, many of the jurisdictions in this region, including San Francisco, San Jose and Oakland, already require all-electric new construction. In sending a weak market signal for electrification precisely to those regions where it is needed most, the Staff Proposal largely perpetuates business as usual.

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<sup>1</sup> Modelling a 2,700 sq. ft. single-family home with the Title 24 compliance 2022 research software.

The Staff Proposal also maintains barriers to future electrification by failing to ensure new homes built with gas water heating are constructed with the necessary space and plumbing to facilitate HPWH installation at a later juncture. This makes it far more costly, challenging and unlikely that a gas water heater would be replaced with a HPWH upon burnout. Achieving the rapid reductions in fossil fuel reliance needed to mitigate the climate crisis will be challenging enough without the additional impediments in Staff’s proposed building code update.

The Staff Proposal seems to be predicated on the misconception that we have the luxury of time; that it is enough for the 2022 code update to provide mild encouragement for all-electric construction and that adoption of an all-electric performance standard can be deferred to the 2025 code cycle. California is now enduring wildfires in January. We are out of time. Delay in adopting a strong electrification code until the 2025 code cycle would result in an additional three million tons of greenhouse gas pollution by 2030 and more than \$1 billion of unnecessary spending on new gas connection infrastructure.<sup>2</sup> With the Biden Administration leaning into the climate crisis and recognizing the urgent need for transformative action, now is the time for the Commission to build off of that momentum by moving much more aggressively to end continued reliance on fossil fuels in buildings. We urge the Commission to rise to this moment, demonstrate its climate leadership, and correct the deficiencies in the Staff Proposal.

Thank you for your consideration of these comments and we welcome the opportunity to further discuss our concerns.

Respectfully submitted,

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<sup>2</sup> Rocky Mountain Institute, *California Can’t Wait on All-Electric New Building Code* (July 28, 2020), <https://rmi.org/california-cant-wait-on-all-electric-new-building-code/>.

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