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Strong Support for an All-Electric base code in 2022

Additional submitted attachment is included below.

DOCKETED Docket Number: 19-BSTD-03 Project Title: 2022 Energy Code Pre-Rulemaking TN #: 234224 Document Title:

Strong support for an All-Electric Base Code in 2022
Additional submitted attachment is included below.
August 5, 2020 GM 20-139 California Energy Commission Docket Unit, MS-4 1516 Ninth Street Sacramento, California 95814-5512
Re: Docket No. 19-BSTD-03

Dear Commissioners,

Thank you for the opportunity to comment on the request to make the All-Electric building code in 2022 instead of 2025. Key to the discussion is the need for a mandate to accelerate adoption.

I am in full support of the CEC moving the all-electric building code from 2025 to 2022. I see this as a great opportunity to move things forward. B 55-18[1] set the goal for a carbon neutral California by 2045. This will not be easy. We need bold strokes like moving the all-electric code from 2025 to 2022 to get us to carbon neutrality by 2045.

Electrification is the cost-effective strategy to eliminate GHGs and manage the climate back to health.[2]

One appealing part of the proposal to move to an all-electric is that it simplifies analysis and enforcement. Small cities do not have the resources to analyze all possible approaches. The approach that Menlo Park took on electric appliances has been copied by other jurisdictions[3].

Going to an all-electric building code levels the playing field between participants. It especially helps smaller communities. If a program has choices that need validation, this takes energy and effort. If something is mandated, the smaller communities just participate.

One good example of the power of mandates is in AB 117, creating Community Choice Aggregators or CCAs. Customers are automatically included as a member in the CCA. They do have the option to opt out if they desire to. The bill was set up that way based on the results from Palo Alto with their zero-carbon option electricity option. The first enrollment was opt-in and they had a 25% opt in rate. When they moved to an opt-out program, the program participation was well over 90%.

Some of the advantages of all-electric construction include:

- Minimize stranded assets. Any gas infrastructure that is built now will have a shorter useful life as California moves to carbon neutral in 2045. Adopting this ordinance in 2022 says we will not have stranded assets built from2022 to 2025.
- Minimize construction costs. Mixed fuel buildings have two energy distribution networks (gas and electricity). Eliminating one energy distribution network means less expense.
- The operating expense can also be less with a properly configured system.
- Safer cooking by eliminating toxic fumes from the gas stove. Gas stoves generate nitrogen dioxide and carbon monoxide[3]. This is from a UCLA study released May 1.
  Nitrogen dioxide is known for increasing asthma. From an equity perspective asthma is more prevalent in low income homes. Moving to all-electric eliminates these two toxic gases.
- No gas means no danger of gas fires and explosions. We were [4.] reminded again about this possibility with the fire in Los Altos Note the explosion in San Bruno[5] that killed 8 and injured over 50 people occurred 10 years ago (September 9, 2010) .

These are all good reasons. However, it does not cover who will get the most benefit from addressing climate change. The people with the most to lose from climate change are our children and grandchildren.

They are the ones to best see the benefits of reducing Green House Gases (GHGs). They are the ones which will be exposed to sea level rise and high temperature episodes. The students (teenagers) recognize the need to address these challenges. While Greta Thunberg is the most visible, there are many youth organizations with powerful leaders working to address climate change . We owe it to future generations to leave the planet in good shape when we turn it over to them.

Next Steps:

We now have over 32 jurisdictions that have passed REACH codes across the state. **It is time to move this to part of the base code to being all-electric.** We need good discussions on how to construct the code from what we have learned.

We also have REACH codes for the EV charging networks. The REACH

code templates from PCE / SVCE listed templates for low income as well as market rate. Please consider the option of ALMS (Automatic Load Management System).

Thanks for reading this letter and for possibility we will be able to accelerate the schedule for an All-Electric 2022 building code.

[1] https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf

[2] Rocky Mountain Institute. https://rmi.org/insight/the-economics-of-electrifying-buildings/; https://www.greenbiz.com/article/yes-clean-electric-buildings-can-reduce-emissions-and-savemoneynewconstruction

[3] https://ph.ucla.edu/news/press-release/2020/apr/ucla-fsph-research-investigates-effect-residential-gas-appliances-air

[4]https://www.nbcbayarea.com/news/local/los-altos-homes-evacuated-for-gas-meter-leak-fire/2354988/

[5]https://en.wikipedia.org/wiki/San_Bruno_pipeline_explosion

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