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All Electric Benchmark, Please re Docket # 19-BSTD-03 2022 Energy Code Pre-Rulemaking

RE: Docket # 19-BSTD-03 2022 Energy Code Pre-Rulemaking

Please establish an all-electric baseline for the 2022 Energy Code.

The importance of reducing greenhouse gas emissions is unquestioned and building electrification is essential if we are to achieve net zero in a timely manner.

One of the most complex problems California faces is that of retrofitting the existing building stock to all-electric energy. This is a massive undertaking, and far more complex than retrofitting any individual building. The problem is not in the building retrofit itself, but in the interacting systems: utility infrastructure, social justice & equity, supply chains and workforce are some of the factors that interact in complex ways.

Any new mixed-fuel-building adds to the complexity of the retrofit process, adding costs and delays, and sending confusing market signals to equipment suppliers and contractors.

The CEC is uniquely positioned to remedy this problem, by ensuring that the 2022 Energy Code actively encourages all-electric construction and discourages mixed fuel construction.

Unfortunately, the 2016 and 2019 codes had the opposite effect. One anecdote as example: in 2019, a San Francisco acquaintance wanted to build an all-electric home in Napa County. He could not get a permit for an all-electric building “ because the code officials lacked understanding of possible pathways, and my neighbor lacked the esoteric knowledge needed to navigate the energy codes. He mentioned this to me in passing, and I was able to put him in contact with a building energy consultant who helped him get the permits “ after a long and complex process.

This situation exists in part because the base case is mixed fuel. Building other than mixed fuel adds complexity to the design and permitting process. Because the base case is mixed fuel, it appears to some designers and code enforcement officials that mixed fuel is preferred. Result: increased GHG emissions and an expensive retrofit in the next 25 years.

By making the base case all electric, the CEC establishes a presumption that all-electric is preferred, sending clear signal to architects, contractors and code officials.

And by simplifying the approval process for all electric construction means that, in

addition to not adding buildings to the retrofit queue, we will:

- 1) Encourage contractors to grow the skilled workforce need to support the coming retrofit needs.
- 2) Send a clear signal to the supply chain, encouraging investment in manufacturing capacity and the skilled workforce needed to make the all-electric alternatives to mixed fuel systems.

It is essential that the 2022 Energy Code unambiguously signal that all electric construction is the preferred alternative.