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SCE Letter to CEC - Energy Code July 2020

Additional submitted attachment is included below.



Carla Peterman
Senior Vice President,
Regulatory Affairs

July 2, 2020

California Energy Commission
Docket Office, MS-4
Re: Docket No. 19-BSTD-03
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov

Re: Southern California Edison Company's Comments on the California Energy Commission
Docket No. 19-BSTD-03

Dear Commissioners:

Southern California Edison (SCE) is proud to be a long-standing partner with the California Energy Commission (CEC), our customers, the building industry, and local communities on important climate change and air quality efforts. Electric utilities are uniquely poised to facilitate California's transformation to a clean energy economy. Achieving carbon neutrality is key to combatting climate change and the extreme weather events that exacerbate the catastrophic wildfires of recent years. Furthermore, the effects of a fossil-fuel-powered economy more severely impact low-income communities and communities of color, impinging on health, safety, and economic activity. Now, more than ever, we need strong policies to usher in an equitable clean energy future.

SCE's Pathway 2045¹ sets out a plan for achieving the State's goal of carbon neutrality by 2045 through decarbonization across all sectors of the economy, including fully electrifying 70 percent of California's buildings. The Department of Energy estimates that buildings constructed or renovated between now and 2035 will represent 75 percent of the total U.S. building stock. The energy code will affect California's building stock as it continues to grow through 2045. Aligning the energy code with the State's carbon neutrality goal will avoid locking in natural gas emissions and avoid costly spending on natural gas infrastructure that may become stranded before 2045. The CEC and CPUC can work together with program administrators across the State to direct programs that continue to build experience in the market with electric technologies and drive down the cost of all-electric options.

SCE supports the CEC moving as quickly as possible to an all-electric code where feasible. One way to encourage all-electric buildings is by providing builders with more options and compliance credits for electrification. Prioritizing cost-effective all-electric code packages can deliver higher GHG reductions benefits. The statewide 2019 Low-Rise Residential New

¹ [Pathway 2045](#). Southern California Edison. (2019)

Construction Cost-effectiveness Study indicates that code compliant all-electric homes result in significantly lower GHG emissions and lower lifetime costs than mixed fuel homes.² Moving to residential all-electric buildings in code makes sense for consumers financially and supports the State's climate objectives. All-electric new building construction costs are further reduced by eliminating the cost of the gas infrastructure. Operating costs and GHG emissions of all-electric buildings can be further reduced with the installation of solar and energy storage systems.

Customers also benefit from the efficiency of electric technologies that can lower consumption and bills compared to gas combustion. All-electric new construction is one of the most promising near-term opportunities for consumer cost savings and GHG reduction, according to a 2019 Energy and Environmental Economics study.³ Air-source heat pumps and heat pump water heaters are three to five times more energy-efficient than their natural gas counterparts.

Perhaps the most compelling information is the health imperative that supports electrification of new homes and buildings. Buildings in California burn more gas and emit about seven times more nitrogen oxide (NOx) pollution than all of the state's power plants. Excessive NOx exposure leads to respiratory problems, particularly for many vulnerable populations including the elderly, children, and persons with compromised immune systems. For example, an April 2020 UCLA study found that gas-fueled furnaces, water heaters, and stoves compromised indoor air quality to a degree that increases the likelihood of respiratory and cardiovascular disease.⁴ A meta-analysis from decades of research found that children in homes with gas stoves have a 42 percent increased risk of experiencing asthma symptoms.⁵

Building electrification is an essential part of California's cleaner, equitable, healthier, emissions-free future. SCE fully supports the CEC's pursuit of cost-effective and efficient electrification in the 2022 iteration of Title 24 and beyond. Switching to electric appliances helps achieve California's climate and air quality goals while delivering substantial public health benefits to Californians. SCE looks forward to continuing to work with the CEC and other interested stakeholders through the various codes and standards support activities on which we collaborate. I am available to discuss these matters further at your convenience.

Sincerely,

/s/

Carla Peterman

² [2019 Residential New Construction Cost Effectiveness Study](http://www.localenergycodes.com), accessed at www.localenergycodes.com.

³ [Residential Building Electrification](#). Energy and Environmental Economics. (2019)

⁴ [Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California](#). UCLA Fielding School of Public Health, Department of Environmental Health Services. (2020)

⁵ [Meta-Analysis of the Effects of Indoor Nitrogen Dioxide and Gas Cooking on Asthma and Wheeze in Children](#). International Journal of Epidemiology 1724. (2013)