DOCKETED	
Docket Number:	19-BSTD-03
Project Title:	2022 Energy Code Pre-Rulemaking
TN #:	234589
Document Title:	San Diego Green Building Council Comments - SDGBC - Support for All-Electric Code in 2022 Energy Code
Description:	N/A
Filer:	System
Organization:	San Diego Green Building Council
Submitter Role:	Public
Submission Date:	9/4/2020 12:18:03 PM
Docketed Date:	9/4/2020

Comment Received From: San Diego Green Building Council
Submitted On: 9/4/2020
Docket Number: 19-BSTD-03

SDGBC - Support for All-Electric Code in 2022 Energy Code

Additional submitted attachment is included below.

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SAN DIEGO GREEN BUILDING COUNCIL

California Energy Commission
Docket Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 19-BSTD-03 – SDGBC Support for All-Electric Code in 2022 Energy Code

The San Diego Green Building Council is a community of 250 building industry professionals and sustainability advocates with expertise in areas such as architecture, construction, design, urban planning, policy, and more. We work together to promote sustainable building and community practices to bring the San Diego region closer to achieving its climate, water, waste, and energy goals. We support the adoption of an all-electric code for residential and commercial buildings in the 2022 update of the Energy Code.

We believe that the move toward electrification is quickly moving 'mainstream' – as evidenced by the dozens of California cities which have approved electrification reach codes. We have supported these forward-thinking codes now in place, and our members are currently working with dozens more cities across the state on the same trajectory.

We appreciate that the California Energy Commission is mandated to minimize the cost of energy services to Californians. We believe that for virtually all commercial and institutional buildings today in California, required electrification is consistent with that mandate, since numerous CEC commissioned studies have found that electrification is the lowest cost and least risk pathway to achieve the State's legislated climate goals by 2045. The San Diego Green Building Council believes that the necessary transition to this path must begin with the 2022 update to Title 24.

Failure to make this course correction early would result in a continuation of the installation of equipment and infrastructure that will quickly become obsolete and thus have to be replaced before its end of life, which would waste taxpayer money and thus be contrary to the cost effectiveness requirements of the Warren-Alquist Act. Future renovation and replacement costs must be included in cost effectiveness analysis when considering continued onsite combustion in buildings.

While we recognize that there are some very limited circumstances where 100% electrification may not currently be feasible, we believe that the Title 24 standard can be written to provide the flexibility to address these particular situations while keeping the vast majority of new construction all electric.
Delaying electrification until the 2025 code cycle would leave less than 20 years to retrofit millions of existing buildings across California by the 2045 deadline. Retrofits are inherently more costly, time consuming, and disruptive to owners and tenants than if buildings were electrified from the start.

For example, the Governor has set a goal of building 3.5 million new housing units by 2025. These should be built for full electrification right from the start rather than passing electrification retrofit costs on to future Californians.

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The health, safety, and equity issues of fuel combustion in buildings are also a serious concern. Indoor and outdoor air pollution disproportionately impact disadvantaged communities and communities of color, and California continues to lead the nation in air pollution and its health impacts. These structural inequities must be addressed with urgency. Fossil fuel combustion in buildings release nearly seven times more NOX pollution than do all of California's power plants[1], and UCLA research[2] has demonstrated serious health impacts from combustion inside homes. A 2019 CEC report by Berkeley Economic Advising and Research[3] found the "benefits of electrification significantly outweigh the costs" and "more dramatically, the public health benefits are greater...for disadvantaged communities and contribute to reducing inequality." The health-related costs of combustion in buildings are significant and part of the CEC's responsibility to develop an energy code that works for all Californians.

Fortunately, solutions are readily available. All-electric buildings of all types and sizes are being designed today by architects, engineers and contractors across the state. They use efficient electric appliances that run on California's rapidly expanding clean renewable energy supply supplemented with solar. Rapid advances in energy storage and demand flexibility continually make our electric grid more efficient and affordable. Electrification will reduce carbon emissions and other pollutants, improve health outcomes, lower energy costs, help mitigate fire risk, and aid California in meeting its legislated carbon reduction targets. The 2022 code will become effective on January 1, 2023, and that is high time for a Title 24 that is definitive in requiring electrification.

Sincerely,

Josh Dean, Executive Director, San Diego Green Building Council

Ravi Bajaj, Board Chair, San Diego Green Building Council

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1 Golden, R., & Gough, M. (2019, September 19). It's Time to Go Gas-Free to Protect Our Climate and Our Communities. Retrieved September 02, 2020, from https://www.sierraclub.org/articles/2019/09/it-s-time-go-gas-free-protect-our-climate-and-our-communities

2 Zhu, Yifang, Rachel Connolly, Yan Lin, Timothy Mathews, and Zemin Wang. 2020. *Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California.* UCLA Fielding School of Public Health.

3 Roland-Holst, David, Samuel Evans, Samuel Heft-Neal, Drew Behnke, and Myung Lucy Shim. 2018. *Exploring Economic Impacts in Long-Term California Energy Scenarios*. California Energy Commission. Publication Number: CEC-500-2018-013.