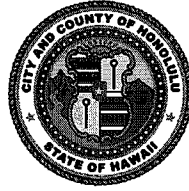


OFFICE OF CLIMATE CHANGE, SUSTAINABILITY AND RESILIENCY

CITY AND COUNTY OF HONOLULU

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May 22, 2023

The Honorable Matt Weyer, Chair
and Members
Committee on Housing, Sustainability and Health
Honolulu City Council
530 South King Street, Room 202
Honolulu, Hawai'i 96813

Dear Chair Weyer and Councilmembers:

SUBJECT: Bill 4 (2023), Relating to the Adoption of the Hawai'i State Energy Code

The Office of Climate Change, Sustainability and Resiliency (CCSR) strongly supports Bill 4 (2023), which adopts the Hawai'i State Energy Code (2018 International Energy Conservation Code [IECC]) with local amendments as the City and County of Honolulu's ("City") Building Energy Conservation Code ("Energy Code"). CCSR additionally supports Committee Chair Weyer's Proposed CD1 to Bill 4 (MW4).

Buildings play an incredibly large role in our ability to address long-term affordability for residents, and both the drivers and impacts of climate change. Since a building's operational performance is largely determined by upfront decisions, energy codes present a critical opportunity to not only protect life and safety, but also assure occupants cost savings on their utility bills through energy efficient design and construction. In addition to dollar savings, regularly updated energy codes are one of the most important tools we have to drive down energy usage and resulting carbon pollution from buildings' operations.

We greatly appreciate Chair Weyer's invitation to participate in a recent convening of industry stakeholders with expertise in the application of the Energy Code. We believe these stakeholder discussions have produced proposals, as put forward in the Proposed CD1 [MW4], that mostly address outstanding concerns by clarifying code intent and maintaining a balance between greater efficiency and affordability of new buildings and homes.

We do, however, respectfully offer one comment in regards to the Proposed CD1 amendment related to the third exception to the requirement for insulation for mass

walls (C402.2.2 and R402.2.5). We received feedback that, as originally proposed, the term “natural masonry surface” may not be widely-used industry terminology. The intent of this provision was to allow exceptions for a limited number of cases where such “natural masonry” product may be used. The change in language, as proposed, to mass walls that “have an unpainted finish with or without a clear sealer” would increase the use cases where an exemption from insulation is permitted.

Our concern is that uninsulated mass walls, particularly those of west- and southwest-facing dwelling units, will be subject to significant solar heat gain over the course of a day. In addition to daily solar heat gain, climate science tells us that, as early as 2050, O’ahu is likely to experience average temperatures that are at least 1.8°F, and up to 7.2°F, warmer than today’s¹. We have already measured a 2°F increase in average temperatures since the 1950s with increasing numbers of high heat days (greater than or equal to 90°F) and warm nights (greater than or equal to 75°F). Heat exposure is associated with numerous health issues, as well as increased energy usage and resulting higher utility costs, impacting housing affordability. To more specifically, and narrowly, address heat health and energy cost burden risks we recommend the following alternative language for sections C402.2.2 and R402.2.5:

“3. Concrete, CMU and similar mass walls are 6 inches or greater in thickness for all use types except exterior walls of dwelling units in multi-unit residential buildings oriented between 180 and 270 degrees from north.”

The City’s community-driven, science-based Climate Action Plan states that regularly updating our energy codes to the highest standards is the most important long-term measure we can take to enable energy efficiency across O’ahu². The City’s Climate Change Commission further recommended the adoption of the most recent model energy codes, as well as stretch and/or zero energy codes that prepare the market for code advancements, in order to achieve our established emissions reductions targets³.

Although widely understood as a modest update from the previous code, the

1 City and County of Honolulu Climate Change Commission (2023). *Climate Change Brief*. <https://www.resilientoahu.org/s/Climate-Change-Brief-2023.pdf>.

2 *One Climate One O’ahu*, City and County of Honolulu Climate Action Plan 2020-2025, Strategy 5: Reduce Energy Demand by Increasing Energy Efficiency: <https://www.resilientoahu.org/s/2020-2025-Climate-Action-Plan.pdf#page=74>.

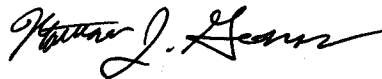
3 City and County of Honolulu Climate Change Commission (2022). Reducing Greenhouse Gas Emissions from Buildings: https://www.resilientoahu.org/s/HonoluluClimateChangeCommission-ReducingGHGEmissionsFromBuildings_July2022.pdf.

The Honorable Matt Weyer, Chair
and Members
May 22, 2023
Page 3

U.S. Department of Energy reviewed the 2018 IECC and determined the updated edition would improve energy efficiency in new buildings subject to the code compared to the previous 2015 edition (the City's current code)⁴. Keeping the City's Energy Code up-to-date and localized to meet our needs and conditions will ensure that early investments in efficiency and heat mitigation continue to pay dividends to owners and occupants for years into the future.

Thank you for the opportunity to provide these comments in support of Committee Chair Weyer's Proposed CD1 to Bill 4 (2023). We look forward to continued engagement with the Council and industry stakeholders towards adoption of this important affordability and health and safety measure. Should you have any questions, please contact me at (808) 768-2277 or at resilientoahu@honolulu.gov.

Sincerely,



Digitally signed by Gonser,
Matthew
Date: 2023.05.22 11:34:52 -10'00'

Matthew Gonser
Executive Director and
Chief Resilience Officer

APPROVED:



Michael D. Formby
Managing Director

⁴ Department of Energy, Energy Efficiency and Renewable Energy Office (2019). *Determination Regarding Energy Efficiency Improvements in the 2018 International Energy Conservation Code (IECC)*: <https://www.regulations.gov/docket/EERE-2018-BT-DET-0014>.