

CLIMATE CHANGE COMMISSION
CITY AND COUNTY OF HONOLULU

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RICK BLANGIARDI
MAYOR

December 5, 2022

The Honorable Rick Blangiardi, Mayor
530 South King Street, Room 300
Honolulu, Hawai'i 96813

AND

The Honorable Tommy Waters,
Chair and Presiding Officer
and Members
Honolulu City Council
530 South King Street, Room 202
Honolulu, Hawai'i 96813

Dear Mayor Blangiardi, Council Chair Waters, and Councilmembers:

SUBJECT: Reducing Greenhouse Gas (GHG) Emissions from Building Operations

Pursuant to the Revised Charter of Honolulu (RCH) Section 6-107(h), the City and County of Honolulu (City) Climate Change Commission (Commission) is charged with gathering the latest science and information on climate change impacts to Hawai'i. The Commission provides advice and recommendations to the Mayor, City Council, and executive departments as they look to draft policy and engage in planning for future climate scenarios as well as reduce Honolulu's contribution to global greenhouse gas emissions.

Buildings generate nearly 40 percent of global annual GHG emissions and are a "central solution to the climate crisis"¹. Of the annual global GHG emissions, building operations are responsible for 28 percent. A building's operational GHG emissions are from a building's energy consumption, such as heating, cooling, and lighting. Hawai'i's unique geographic location results in increased challenges and current reliance on imported fossil fuels and building materials, but also presents opportunities. The construction industry in Hawai'i has an opportunity to change its adverse impact on the climate through new and renovated buildings. The Hawai'i Clean Energy Initiative (HCEI) sets bold clean energy goals that include achieving the nation's first-ever 100 percent renewable portfolio standards (RPS) by the year 2045, and the City's Climate Action Plan (CAP) Strategy 5 is to "Reduce Energy Demand by Increasing Energy Efficiency." In Hawai'i as of 2020, each dollar spent on efficiency saves eleven times that amount on energy bills.

1 Architecture 2030 Challenge: <https://architecture2030.org/new-building-actions/>.

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Given the need to reduce GHG emissions from building operations and the challenges and opportunities in Hawai'i, the Commission worked with dozens of stakeholders in industry, government, academia, non-profits, and advocacy over the last two years to prioritize key recommendations and best practices from other U.S. cities and states that are transferrable to Honolulu. These recommendations fall under three broad categories: (1) codifying equitable policies to reduce emissions from existing buildings' operational energy use, (2) incentivizing building owners, designers, and builders to adopt practices that reduce GHG emissions from building operations, and (3) identifying opportunities for education and encouraging design professionals, contractors, and developers to utilize these opportunities to reduce buildings' operational energy use.

As such, the Commission makes the following recommendations for the City and County of Honolulu (please see attachment for details):

1. Adopt the following targets modified from the Architecture 2030 Challenge to mitigate the building sector's contribution to climate change.
 - a. All new buildings, developments, and major renovations shall be designed to meet a fossil fuel, GHG-emitting, energy consumption performance standard of 70% below the regional average/median for that building type in the 2003 Commercial Building Energy Consumption Survey (CBECS).
 - b. At a minimum, an equal amount of existing building area shall be renovated annually to meet a fossil fuel, GHG-emitting, energy consumption performance standard of 70% of the regional average/median for that building type.
 - c. The fossil fuel reduction standard for all new buildings and major renovations shall be increased as follows.
 - i. 80% in 2025;
 - ii. 90% in 2030; and,
 - iii. Carbon neutral in 2040
2. Convene a task force to advise the City on creating a roadmap that identifies actions and timelines to meet GHG emissions reduction targets in the City's Climate Action Plan (Strategy 5), the Hawai'i Clean Energy Initiative, and the 2030 Challenge. This roadmap could include the following recommendations.
3. Support the adoption of the most recent building energy codes and stretch/reach codes to require and motivate best practices.
4. Require building energy benchmarking and disclosure for buildings over 25,000 sq.ft. [Note: In addition to the requirement to benchmark City facilities greater than 10,000 sq.ft., as adopted

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in Ordinance 20-47, the Better Buildings Benchmarking Program for private buildings was established by Ordinance 22-17.]

5. Encourage existing buildings to improve energy efficiency over time.
 - a. Investigate energy auditing, building commissioning, and cost-effective energy-efficient retrofits.
 - b. Investigate building performance standards.
6. Incentivize building owners, occupants, designers, and builders to adopt practices to reduce GHG emissions from building operation through financial incentives, energy efficiency standards, tax benefits, loans, grants, expedited permitting, and new financial tools.
7. Support education and ongoing training of professional designers, builders, and code enforcement officials to meet the goals of the 2030 Challenge, the American Institute of Architects' Framework for Design Excellence, and the previously mentioned codes, policies, practices, and incentives.

Recent federal legislation and commitment of funding through both the Infrastructure Investment and Jobs Act (2021) and Inflation Reduction Act (2022) were not defined nor committed while this guidance was in development, however, both present opportunities to bring resources to bear in support of the recommendations. The Commission recognizes the significance of these recommendations in meeting the City and State's overall GHG reduction goals and offers the resources of the Commission in helping to communicate and implement these recommendations. If you have any questions, please contact us at ccc@honolulu.gov

Sincerely,



Rosanna 'Anolani Alegado, Ph.D.
Chair



Victoria Keener, Ph.D.,
Vice Chair

Attachment

Cc: All Executive Agencies
Honolulu Authority for Rapid Transportation
Honolulu Board of Water Supply