HAWAII STATE BUILDING CODE COUNCIL
State Office Tower, Room 505
9:00 AM

February 21, 2023

RE: IECC 2021 AMENDMENTS

Chair Wiig, and members of the committee:

My name is Greg Thielen, Codes Committee Chair of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii. Our members build the communities we all call home.

Hawaii is facing a severe housing affordability crisis. While our situation is more dire, this is an issue that is plaguing our whole country. It has become increasingly difficult, almost impossible, to build affordable housing. While there are a range of reasons for this problem, the simple truth is that building codes have changed from minimum standards for the health and safety of building occupants to a regressive tax on housing. It is for this reason that BIA Hawaii opposes proposed amendments to the 2021 IECC that add unnecessary costs to housing. Often, doing a cost benefit analysis shows that there is no good reason to exceed the current code requirements especially where, as here, we are in a severe housing affordability crisis. It is incumbent upon the SBCC to analyze the true cost to housing of each proposed amendment, and SBCC should not approve any such amendments until this analysis has been performed. That being said, we have identified the following areas of specific issues where BIA requests that the SBCC reject the proposed code amendments for the following reasons:

1) The change to **C405.2 Lighting controls**: Multifamily Residential Common Areas such as corridors and lobbies, should be excluded from occupancy controls. Justification: Lighting controls add significant upfront cost to the price of housing and often yield minimal energy savings. Based on our calculations on the cost of the lighting control system for the corridors and lobbies to the residential Buyers our typical five-story multifamily building, the payback period for the cost of the system is between 8 and 9 years.

2) Response to **C405.12 End-use metering:** This chapter is new to the 2021 IECC. As it applies to multifamily R-2 Occupancies, we are interpreting this additional end-use metering to encompass spaces that are metered off the HECO “House Meter”. Spaces include, but are not limited to, lobbies, corridors, stairwells, trash rooms, elevators, mail rooms, manager’s office, amenity spaces, etc. The separate categories for sub-metering these spaces are as indicated in Table C405.12.2 (HVAC system(s), Interior lighting, Exterior lighting, Plug loads, Process loads, and Building operations and other miscellaneous loads). It is our opinion that multifamily residential should be exempt from C405.12. Justification: Submetering electrical for these categories within the common area of multifamily residential will add significant upfront cost for the infrastructure, for the on-going monitoring, and storing and reporting of data. *(Per section C405.12.4 and 5, data must be kept for each end-use category required for at least each hour,*

day, month and year for the previous 36 months). The data obtained by sub-metering the common area electrical is easily estimated by other means. For new condominiums, the estimated monthly electrical costs are calculated when developing the overall maintenance cost of the building, and the electrical cost for the spaces and the categories are typically consistent from month to month, with very little variance. If the electrical consumption for these spaces are inconsistent with the estimated consumption, an electrical audit would easily and much more cost effectively be done to verify the electrical consumption by category. In the example of our five-story multi-family buildings, this may include 30 or more sub-metered circuits, per building, larger and more costly electrical circuit boxes that will accommodate the CT readers, additional equipment to receive the data and a dedicated computer to store the data.

Suggested response to SBCC amendments to **C406.3.1 Reduced lighting power by more that 10 percent**: The SBCC's proposed amendment further reduces the allowable interior lighting power to 20 percent, from the 10 percent allowed by the 2021 IECC. Our opinion is that the C406.3.1 should remain as written in the 2021 IECC, without amendments. Justification: the 2021 IECC is the latest version of the energy code, and thus is the version in which the lighting manufacturers are working to comply with. Thus, any additional reduction will limit the lighting SKUs available to cost effectively meet the new code requirements and may create supply issues. The additional reduction proposed by the SBCC appears to be arbitrary and not based on actual information or costs from lighting manufacturers.

3) Response to SBCC amendments to **C406.3.2 Reduced lighting power by more that 15 percent**: The SBCC's proposed amendment further reduces the allowable interior lighting power to 25 percent, from the 15 percent allowed by the 2021 IECC. Our opinion is that the C406.3.2 should remain as written in the 2021 IECC, without amendments. Justification: the 2021 IECC is the latest version of the energy code, and thus is the version in which the lighting manufacturers are working to meet. Thus, any additional reduction will limit the lighting SKUs available to cost effectively meet the new code requirements and may create supply issues. The additional reduction proposed by the SBCC appears to be arbitrary and not based on actual information or costs from lighting manufacturers.

4) Response to SBCC amendments to **C406.3.3 Lamp efficacy**: The SBCC's proposed amendment increases the lumens per watt allowed beyond the what is written on the 2021 IECC. Our opinion is that C406.3.3 should remain as written in the 2021 IECC, without further amendments. Justification: the 2021 IECC is the latest version of the energy code, and thus is the version in which the lighting manufacturers are working to meet. Any additional reduction will limit the lighting SKUs available to cost effectively meet the new code requirements and may create supply issues. The additional reduction proposed by the SBCC appears to be arbitrary and not based on actual information from lighting manufacturers. The proposed efficacy is well beyond what is available today in cost-efficient builder-series lighting.

5) Response to SBCC's proposed addition of **C409 Electric Vehicle Efficiency**: Our opinion is that it is best to leave the EV issue with the Counties, rather than included in the State's Energy Code. Justification: These requirements are already included in Honolulu's version of the Energy Code (Chapter 32 – Article 1. Building Energy Conservation Code). What works for Honolulu, may not work for Hilo. If the SBCC does leave the Electric Vehicle requirements into the State's version of the IECC, they should further replicate the language in the current version of the C&C of Honolulu's Building Energy Conservation Code. The SBCC's version removes the language regarding Developer's flexibility to aggregate the points across multiple projects and phases; provided that each individual project achieves no less than 10 percent compliance or adds a minimum of one electric vehicle charger ready parking space per project, whatever is greater.

6) Response to proposed amendments to **R407.2 Tropical climate Item 11. *AND* R409 Points option, Item 11 (ceiling fans):** The SBCC should leave the original language as written from the 2021 IECC. Justification: Ceiling fans add significant upfront cost to new housing. Ceiling fans are easy to install by the home owner after move-in. Ceiling fans, more than lighting,

are a personal decorator item that is best left to the Home Owner to buy and install. The expected replacement of the builder-provided ceiling fans is expected to be prevalent, resulting in ceiling fans in landfills.

7) Comment on the **R409 Points option for both Standard Home Points and Tropical Home Points**: It appears that on table 409.1 Points Option, that on the Wood Frame, "No air conditioning install," the 2 points previously provided in the Tropical Home Points has been eliminated. This may be an error on the draft proposed amendments, but this needs clarification.

8) Response on proposed revision of **R409.2 Requirements**: The cumulative points that previously were 0 (zero) has been arbitrarily increased to 2 (two) points. This is problematic and will result in additional cost of homes. The justification that the SBCC has provided is that "*Building technologies have improved since the section was written. Achieving two points is readily achievable in a cost-effective manner."* We disagree that this is cost-effective, there will be added cost as a result of moving the goal line. We recommend leaving the point system as is.

We strongly encourage the SBCC to refrain from moving forward with any decision making on this code until such a time as more research is done on the true cost of the proposed amendments. We appreciate your consideration of BIA's comments and hope to work with you to do the analysis necessary to fully vet and consider the true cost impact of the proposed amendments so that such impacts may be weighed against the perceived benefits of the proposed changes. We would be happy to discuss our comments with you and any questions you may have.

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