



**AIA**  
**Maryland**

*Promoting Maryland Architecture Since 1965*

21 January, 2021

Senator Guy Guzzone, Chair  
Budget and Taxation Committee  
3 West Miller Senate Office Building  
11 Bladen Street  
Annapolis, Maryland 21401

Re: Letter of Recommendations for SB0198  
Income Tax – Credit for Energy Efficiency Upgrades – Passive Houses

Dear Senator Guzzone:

I am writing to voice AIA Maryland's concerns for Senate Bill 0198. AIA Maryland represents nearly 2,000 architects in the state of Maryland and advocates for the profession and the quality of the built environment. As architects we work every day to design the future now, including addressing the changing climate. The economic benefit in this bill encourages homeowners to make upgrades to their home which would increase the energy efficiency and therefore better the environment while also decreasing the burden on fuel and utility consumption.

While we strongly support the intent of this bill to promote and incentivize energy efficiency upgrades in the residential sector, we find the text of this policy note to be confusing. The description references the Passive House Institute, while the analysis focuses on the International Energy Conservation Code. These are two separate entities with different requirements and different goals. Currently, the Maryland Building Performance Standards is the law related to building codes and adopts and modifies the International Code Council Codes, of which the IECC is a part. The goal of the IECC is to make optimal use of fossil fuels and renewable energy sources.

Please note that there are several different groups that promote Passive House, including the Passive House Institute and the Passive House Institute US, Inc. which is a completely different entity from the Passive House Institute with a different certification process and a different approach to climates. For the purposes of this letter, we have referenced the Passive House Institute standards, not PHIUS, as that was the term noted in the preamble. The North American Passive House Network is a group within the US that promotes PHI, rather than PHIUS.

The Passive House Institute is an independent research institute that is dedicated to developing a building standard that is energy efficient, comfortable and affordable. The goal of the PHI is to use as little energy and fossil fuel as possible while maintaining the interior comfort of the occupants, with energy savings of approximately 90% when compared with typical building stock. PHI does not recognize climate zones, of which the ICC codes rely on. All Passive House standards from any of the organizations are above and beyond the requirements of the IECC and would therefore be acceptable to local governing jurisdictions. The IECC is the code minimum that is enforced within Maryland.

The bill summary notes four areas for energy efficiency upgrades and that a tax credit could be claimed if a taxpayer meets or exceeds the minimum R-value of the component, as established by the current version of the IECC.

1. Additional Insulation: The PHI recommends a U-value of 0.15 for the entire building, while the IECC focuses on U and R-values per tables, dependent on the element, such as walls, floors or ceilings. Meeting or exceeding the prescribed R-value of the IECC would not necessarily correspond to meeting PHI certification.

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2. Energy Efficient Windows and Storm Windows: The IECC requires a minimum U-Factor for windows of 0.32 for Climate Zone 4 (Garrett County is Climate Zone 5, which requires U= 0.30). The PHI requires a minimum U-Factor for windows of 0.80.
3. Weatherstripping and Caulking: A tightly sealed building results in less drafts and less energy loss and higher comfort. The IECC requires an air tightness of 3 air changes per hour. The PHI requires an air tightness of a maximum of 0.6 air changes per hour.
4. Duct sealing and insulation: The IECC recommends various R-values of duct insulation dependent on location within the building, whereas the PHI includes these numbers within the U-value calculation. Sealing, like weatherstripping, results in less energy loss.

We recognize that while many of these items are regulated by building permit for new or renovated work, much of this could be done to retrofit an existing home without the help of a building professional. An understanding of the requirements with clear definitions would lead to greater success in practical implementation of this bill for all constituents, not just those in building professions.

AIA Maryland and its membership encourages steps to improve the quality of Maryland's built environment, especially those items which address the changing climate. Therefore, AIA Maryland respectfully asks for the committee's thoughtful consideration of the above stated concerns.

Sincerely,



Jennifer Verbeke, AIA  
President, AIA Maryland

cc: Budget and Taxation Committee:  
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