

SB0045_Passive_Housing_MLC_FAV.pdf

Uploaded by: Cecilia Plante

Position: FAV



**TESTIMONY FOR SB0045
TAX CREDIT FOR ENERGY EFFICIENCY UPGRADES – PASSIVE HOUSING**

Bill Sponsor: Senator Kramer

Committee: Budget and Tax

Organization Submitting: Maryland Legislative Coalition

Person Submitting: Cecilia Plante, co-chair

Position: FAVORABLE

I am submitting this testimony in favor of SB0045 on behalf of the Maryland Legislative Coalition. The Maryland Legislative Coalition is an association of activists - individuals and grassroots groups in every district in the state. We are unpaid citizen lobbyists and our Coalition supports well over 30,000 members.

This bill creates a State income tax credit for the eligible costs incurred for energy efficiency upgrades to “Passive House” residences. Passive Houses are a voluntary standard for energy efficiency in a building, which reduces the building's emissions footprint, resulting in ultra-low energy buildings that require little energy for space heating or cooling. Under HB0058, the owner of a single-family residence or a multi-family rental property can claim a tax credit equal to 10% of the total eligible costs incurred during the tax year, not to exceed \$2,000.

Because Passive Houses typically achieve between 60% and 80% energy use reductions, we believe they are a proven pathway to zero energy. We should be encouraging residents to upgrade their homes so they can help us achieve the fossil fuel independence that we so desperately need. This is a good solution.

We support this bill and recommend a **FAVORABLE** report in committee.

SB045-passive housing tax credit-B&T-CJW-fav (1).p

Uploaded by: Diana Younts

Position: FAV



Committee: Budget and Taxation

Testimony on: SB0045 - Income Tax - Energy Efficiency Upgrades -Passive Houses

Organization: Climate Justice Wing of the Maryland Legislative Coalition

Submitting: Diana Younts, Co-Chair

Position: Favorable

Hearing Date: January 18, 2022

Dear Mr Chairman and Committee Members:

Thank you for allowing our testimony today in support of SB0045. The MLC Climate Justice Wing, a statewide coalition of over 50 grassroots and professional organizations, urges you to vote favorably on SB0045.

This bill creates a State income tax credit for the eligible costs incurred for energy efficiency upgrades to “Passive House” residences – i.e., those that use components certified by the Passive House Institute and bring the building into compliance with criteria established by the Institute. Passive Houses are a voluntary standard for energy efficiency in a building, which reduces the building's ecological footprint, resulting in ultra-low energy buildings that require little energy for space heating or cooling. Under SB0045, the owner of a single-family residence or a multi-family rental property can claim a tax credit equal to 10% of the total eligible costs incurred during the tax year, not to exceed \$2,000.

In Maryland, buildings through both direct and indirect emissions are 40 percent of Maryland’s greenhouse gas emissions. Passive houses, because of their low energy needs, are both an important solution to the substantial greenhouse gas emissions by buildings and an important solution to indoor air quality issues faced by Marylanders in our front-line communities most negatively affected by the cumulative impact of polluting industries and transportation corridors. For instance, the South Baltimore Land Trust is building a number of passive houses in the Baltimore community of Curtis Bay as part of the solution to the significant health issues faced by those communities as a result of the concentration of polluting industries and highways in and through their communities. That community has three times the asthma rate of Maryland because of its proximity to the Wheelabrator incinerator, landfills, open air coal terminals, other polluting industries and highways, which cumulatively emit nitrogen oxide, methane, chromium, lead, cadmium, mercury, hydrochloric

acid, and other pollutants.

Passive House is a “conservation first” standard that focuses on improvements to the building envelope and passive design to deliver dramatic energy savings. Passive Houses deliver dramatically improved indoor air quality through better building techniques and continuous, filtered, energy recovery ventilation, resulting in reduced respiratory ailments, far greater comfort, and next to no energy bills.

The reduced energy demand through air-sealing, super insulation and passive solar principles means that any renewable energy applied offsets a larger percentage (if not all) of the buildings’ remaining energy demand. Passive House typically achieves between 60% and 80% energy use reductions. In other words Passive House is a proven pathway to zero energy.

Senate Bill 0045 aims to address reforms to energy consumption policies and standards that need to be set to sustain and achieve a healthy global ecosystem. For these reasons we urge a favorable report for SB045.

MLC Climate Justice Wing:

Assateague Coastal Trust
Maryland Legislative Coalition
MD Campaign for Environmental Human Rights
Chesapeake Climate Action Network
WISE
Frack Free Frostburg
Mountain Maryland Movement
Clean Water Action
Howard County Indivisible
Howard County Sierra Club
Columbia Association Climate change and sustainability advisory committee
HoCo Climate Action
CHEER
Climate XChange - Maryland
Mid-Atlantic Field Representative/
National Parks Conservation Association
350 Montgomery County
Glen Echo Heights Mobilization
The Climate Mobilization Montgomery County
Montgomery County Faith Alliance for

Climate Solutions
Montgomery Countryside Alliance
Takoma Park Mobilization Environment Committee
Audubon Naturalist Society
Cedar Lane Unitarian Universalist Church
Environmental Justice Ministry
Coalition For Smarter Growth
DoTheMostGood Montgomery County
MCPS Clean Energy Campaign
MoCo DCC
Potomac Conservancy
Casa de Maryland
Nuclear Information & Resource Service
Clean Air Prince Georges
Laurel Resist
Greenbelt Climate Action Network
Maryland League of Conservation Voters
Unitarian Universalist Legislative Ministry of Maryland
Concerned Citizens Against Industrial Cafos
Wicomico NAACP

Chesapeake Physicians for Social
Responsibility
Chispa MD
Climate Law & Policy Project
Maryland Poor Peoples Campaign
Labor for Sustainability
The Nature Conservancy
Clean Air Prince Georges
350 Baltimore
Maryland Environmental Health Network
Climate Stewards of Greater Annapolis
Talbot Rising
Adat Shalom Climate Action
Mid-Atlantic Earth Holders
Climate Parents of Prince Georges
Echotopia
Maryland NAACP State Conference,
Environmental Justice Committee

SB45 Favorable Stanek.pdf

Uploaded by: Jason Stanek

Position: FAV

STATE OF MARYLAND

COMMISSIONERS

JASON M. STANEK
CHAIRMAN

MICHAEL T. RICHARD
ANTHONY J. O'DONNELL
ODOGWU OBI LINTON
MINDY L. HERMAN



PUBLIC SERVICE COMMISSION

January 18, 2022

Chair Guy Guzzone
Budget and Tax Committee
Miller Senate Office Building, 3 West
Annapolis, MD 21401

RE: FAVORABLE – SB 45 – Income Tax – Credit for Energy Efficiency Upgrades – Passive Houses

Dear Chair Guzzone and Committee Members:

I write today in support of Senate Bill 45 – Income Tax – Credit for Energy Efficiency Upgrades – Passive Houses. Recognizing that energy efficiency is one of the least expensive ways to meet electricity demands for consumers, the Maryland General Assembly passed the EmPOWER Maryland Energy Efficiency Act in 2008. This Act established the EmPOWER Maryland Program and the State goal of reducing electricity consumption and peak demand. The General Assembly passed legislation in 2017 that updated Maryland's energy efficiency goal and extended the EmPOWER Maryland Program through 2023.

The Maryland Public Service Commission oversees implementation of the EmPOWER Maryland Program by the participating utilities in Maryland. Through June 30, 2020, EmPOWER has saved over 12.6 million MWh and 2,702 MW of peak demand and generated \$1.29 in benefits to Marylanders for every \$1.00 invested in the programs. This is equivalent to reducing 8.97 million metric tons of carbon dioxide emissions.

The EmPOWER Maryland experience shows that weatherization can achieve significant energy savings in a residential property. Therefore, the energy efficiency upgrades and Passive House Standard included in Senate Bill 45 can help customers further reduce their energy usage, control their utility bills, and add value and comfort to their homes. By offering a tax credit to customers for meeting Passive House Standards, the State will further its objectives established under the EmPOWER Maryland Act and encourage customers to make energy efficiency upgrades.

WILLIAM DONALD SCHAEFER TOWER 6 ST. PAUL STREET BALTIMORE, MARYLAND 21202-6806

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Toll Free: 1-800-492-0474

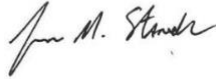
FAX: 410-333-6495

MDRS: 1-800-735-2258 (TTY/Voice)

Website: www.psc.state.md.us

For these reasons, I support Senate Bill 45 and urge a favorable report. Thank you for your consideration of this information. Please contact Lisa Smith, Director of Legislative Affairs, at (410) 336-6288 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason M. Stanek". The signature is written in a cursive style with a prominent initial "J".

Jason M. Stanek
Chairman

Owens Corning - MD SB 45 Kramer -- Passive House T

Uploaded by: Jay Murdoch

Position: FAV

OWENS CORNING
GOVERNMENT & INDUSTRY AFFAIRS
1341 G St, NW SUITE 1100
WASHINGTON, DC 20005



Chair Guy J. Guzzone
Budget and Taxation Committee
Maryland Senate
Miller Senate Office Building, 3 West Wing
11 Bladen St., Annapolis, MD 21401 – 1991

Re: Favorable – SB 45 - Income Tax - Credit for Energy Efficiency Upgrades - Passive Houses

Dear Chair Guzzone and Committee Members:

I write in support of the intent of Senate Bill 45 - Income Tax - Credit for Energy Efficiency Upgrades - Passive Houses. We commend Senator Kramer for planting this seed for a voluntary tax credit for new and existing homes certified as Passive House. We believe that this would be a first in the nation tax credit for Passive House, putting Maryland in a leadership position on electrification and building decarbonization using such a market friendly policy strategy.

While climate, energy efficiency, and equity advocates will likely address how Passive House can help the State and local governments meet climate, electrification, building decarbonization, and grid resiliency goals, help drive down energy costs and monthly utility bills for residents, and improve the indoor air and environmental quality in housing, we wanted to cover a few related issues in which this tax credit would play a key market driving role.

We see this proposed tax credit as a catalyst for a broader discussion and road mapping effort to put Maryland on the path to mainstream Passive House as the standard for new and gut rehabbed government buildings, commercial and multifamily buildings, and eventually new single-family construction. Specifically, following the lead of Brussels and Vancouver, we encourage the legislature to be bold and establish Passive House as the code minimum for all new government buildings by 2028, commercial and multifamily buildings by 2032, and new single-family by 2035. Such a move would be consistent with established law and climate policy already in place. Modeling best practices in Brussels and Vancouver, this can be achieved through the following:

1. Stepped Code Improvements over 10-12 years
2. "Bridge" Incentives (tax, zoning, utility, etc) with each step code increase to ease transition
3. Public Service Commission (PSC) driven incentives for education and training

Lastly, by being explicit on the long-term goal on code minimum, the State clearly signals to building product and equipment manufacturers where it's going. This is of enormous benefit to the product industry as it takes the guess work out of market needs, provides clear direction and informs where to invest resources and capital to help bring about the policy goal. This is also helpful to the design profession, trades, and builders and developers know where they need to be over the next decade. SB 45 can kick this off.

Respectfully,

J Murdoch

Jay Murdoch
Director of Industry Affairs
Owens Corning
jay.murdoch@owenscorning.com
202.680.8915

Home Office:
9208 Shelton Street
Bethesda, Maryland 20817

MBIA Letter of Support SB 45.pdf

Uploaded by: Lori Graf

Position: FAV

January 18, 2022

The Honorable Guy Guzzone
Senate Budget and Taxation Committee
Miller Senate Office Building,
3 West Wing 11 Bladen St.,
Annapolis, MD, 21401

RE: Support SB 45 Income Tax – Credit for Energy Efficiency Upgrades – Passive Houses

Dear Chairman Guzzone:

The Maryland Building Industry Association, representing 100,000 employees statewide, appreciates the opportunity to participate in the discussion surrounding **SB 45 Income Tax – Credit for Energy Efficiency Upgrades – Passive Houses**. MBIA Supports the Act in its current version.

This tax credit will make it much easier for builders to implement energy efficiency upgrades and will by extension have a positive environmental impact. Allowing the credit to be rolled over in a state of emergency will allow builders to take advantage of the credit immediately, while still allowing for the flexibility needed to implement responsible spending during the COVID-19 pandemic. This will also assist in housing affordability which is a major concern in this state.

MBIA supports the current version of the bill and respectfully requests the committee give this measure a favorable report. Thank you for your consideration.

For more information about this position, please contact Lori Graf at 410-800-7327 or lgraf@marylandbuilders.org.

cc: Senate Budget and Taxation Committee

MD Catholic Conference_FAV_SB0045.pdf

Uploaded by: MJ Kraska

Position: FAV



ARCHDIOCESE OF BALTIMORE † ARCHDIOCESE OF WASHINGTON † DIOCESE OF WILMINGTON

January 18, 2022

SB45

Income Tax - Credit for Energy Efficiency Upgrades - Passive Houses

Senate Budget and Tax Committee

Position: Support

The Maryland Catholic Conference (“Conference”) represents the public policy interests of the three Roman Catholic (arch) dioceses serving Maryland: the Archdiocese of Baltimore, the Archdiocese of Washington, and the Diocese of Wilmington.

Senate Bill 45 this bill allows a tax credit for the installation of energy efficiency products in residential properties, which would bring those residences in compliance with the Passive House Standard, as set by the Passive House Institute. Qualifying residential properties include the taxpayer’s residence or a single-family or multifamily residential rental unit. The tax credit may not exceed the littlest of 10% of the total costs paid or incurred by the owner for an energy efficiency upgrade or \$2,000. An “energy efficiency upgrade measure” is defined as energy efficiency improvement to the building envelope or duct system that meets or exceeds the minimum value for the improved component established by the version of the international energy conservation code (IECC). Such upgrade measures include the following: additional insulation, replacement of windows with more two efficient windows; storm windows; weather stripping and caulking; and duct sealing and insulation.

In his encyclical, *On Care for Our Common Home (Laudato Si')*, Pope Francis tells us, “Whenever these questions are raised, some react by accusing others of irrationally attempting to stand in the way of progress and human development. But we need to grow in the conviction that a decrease in the pace of production and consumption can at times give rise to another form of progress and development. Efforts to promote a sustainable use of natural resources are not a waste of money, but rather an investment capable of providing other economic benefits in the medium term... We know how unsustainable is the behavior of those who constantly consume and destroy, while others are not yet able to live in a way worthy of their human dignity”.

Senate Bill 45 aims to address the much needed reforms to energy consumption policies and standards to be set to sustain and achieve a healthy global ecosystem. We encourage discussion around the components and goals outlined in this legislation and hope they are a catalyst for meaningful ecological policy reform.

The Conference appreciates your consideration and, for these reasons, respectfully requests a favorable report on Senate Bill 45.

GHI Testimony - SB45.pdf

Uploaded by: Ruth Ann Norton

Position: FAV



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January 14, 2022

Senator Guy Gazzone
Senate Budget and Taxation Committee
Miller Senate Office Building
3 West, Annapolis, Maryland 21401

Re: **SUPPORT** – SB45 – Income Tax – Credit for Energy Efficiency Upgrades – Passive Houses

Dear Chairman Guzzone:

My name is Ruth Ann Norton, and I am the President & CEO of the Green & Healthy Homes Initiative (GHHI), the nation's largest healthy homes organization. GHHI is dedicated to addressing the social determinants of health and advancing racial and health equity through the creation of healthy, safe, and energy efficient homes. By delivering a standard of excellence, GHHI aims to eradicate the negative health impacts of unhealthy housing and unjust policies for children, seniors, and families to ensure better health, economic, and social outcomes with an emphasis on black and brown and low-income communities. The Green & Healthy Homes Initiative has been at the frontline of holistic healthy housing for over three decades.

Under my leadership, GHHI developed the holistic energy efficiency, health and housing service delivery model that is implemented in our nationally recognized, Maryland-based direct service program as well in 75 partner jurisdictions nationwide and whose model was adopted by the U.S. Department of Housing and Urban Development. GHHI is a member of Energy Efficient Maryland and has served on the New York State Climate Action Council Housing and Energy Efficiency Advisory Panel. I am a member of the EPA Children's Health Protection Advisory Committee and the Maryland Lead Poisoning Prevention Commission.

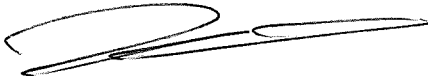
Through our own research and evidence-based practice, GHHI has found that a healthy and energy efficient home yields a multitude of energy and non-energy benefits for residents, particularly low-income residents who can benefit the most from such energy efficiency improvements in terms of economic mobility, housing stability and wealth attainment over the long-term. We are deeply committed to advancing racial, health and energy equity, economic mobility and climate resiliency through improved energy efficiency standards for low-income housing, and thus write in SUPPORT of SB45 which would provide additional financial resources to property owners to make energy efficiency upgrades to their property.

GHHI Written Testimony – Senate Bill 45
January 14, 2022
Page Two

Providing financial resources to property owners to invest in energy efficiency upgrades is an important component in a comprehensive strategy to reduce energy consumption, greenhouse gases and other climate impacts in Maryland. Many owners lack the resources to complete weatherization and energy efficiency interventions without financial assistance. Tax credits provide another financial tool to incentivize owners to afford and make energy efficiency investments. Reducing energy consumption can alleviate energy burdens and financial stressors through the reduction in monthly energy costs. Lastly, research has shown that energy efficiency and weatherization measures can improve housing conditions relating to thermal comfort, indoor air quality, pest management, and fire safety and provide other non-energy benefits for occupants in the home.

SB45 is an investment Maryland should make and we request a favorable report.

Respectfully Submitted,



Ruth Ann Norton
President and CEO

SB0045 AIAMD Letter of Support.pdf

Uploaded by: Sandi Worthman

Position: FAV

14 January, 2022

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

Re: Recommendations for Senate Bill 0045
Income Tax – Credit for Energy Efficiency Upgrades – Passive Houses

Dear Senator Guzzone and members of the Budget and Taxation Committee:

I am writing to voice AIA Maryland's support for Senate Bill 0045. 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 the maximum \$2,000.00 tax credit offered is not enough to offset the entire expense of these type of upgrades, we believe that it is a nice incentive for those that were likely pursuing these upgrades anyway.

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 is happy to support the intent of this bill.

Sincerely,



Jennifer Verbeke, AIA
Immediate Past-President, AIA Maryland

SB45 22 Session Testimony.pdf

Uploaded by: Theresa Kuhns

Position: FAV



Senate Bill 45 – Income Tax – Credit for Energy Efficiency Upgrades –Passive Houses

Position: Support

On behalf of Maryland REALTORS® and our 28,000+ members, we support HB 58 which allows for tax credits for certain energy efficiency upgrades when a homeowner obtains a tax credit certificate from the Maryland Energy Administration.

Our members -- *who represent buyers and sellers alike throughout Maryland* -- can attest to the growing demand for energy efficient upgrades such as additional insulation; energy efficient windows and storm windows; improved weather stripping and caulking; duct sealing and insulation and the like which will make homes more airtight and efficient.

According to REALTOR.COM, projects seeking certification have been growing for many reasons: People crave a smaller carbon footprint, protection from unpredictable energy costs, and the independence of living *off the grid* -- many passive houses can eventually achieve off-the-grid status with solar panels.

Eco-conscious homeowners are attracted to the energy conservation, both for environmental reasons and to ensure lower, future energy bills which may enable prospective owners to become a first-time homebuyer.

Maryland REALTORS® respectfully encourages a favorable report of SB 45.

For more information, please contact bill.castelli@mdrealtor.org or susan.mitchell@mdrealtor.org or lisa.may@mdrealtor.org or theresa.kuhns@mdrealtor.org

LS22, SB45, CCAN Venable testimony.pdf

Uploaded by: Victoria Venable

Position: FAV

SB45 - Income Tax - Credits for Energy Efficiency Upgrades - Passive Houses

Date: January 18, 2022

Committee: Senate Budget & Tax Committee

Position: Favorable

**Victoria Venable, Maryland Director
Chesapeake Climate Action Network Action Fund**

On behalf of the Chesapeake Climate Action Network Action Fund, I urge a favorable report from the committee on SB45 - Income Tax - Credits for Energy Efficiency Upgrades - Passive Houses.

Notably, 13% of our greenhouse gas pollution comes from fossil fuels burned inside our buildings. For this reason, increasing energy efficiency in buildings is a core recommendation from the Maryland Commission on Climate Change in 2021.

SB45 creates a state income tax credit for the eligible costs incurred for energy efficiency upgrades to “Passive House” residences. Passive House is a voluntary building standard that is energy-efficient and affordable. The Passive House envelope minimizes heat losses by separating the interior from the exterior and using techniques such as air-sealing, super insulation, and passive solar principles. Under SB45, the owner of a single-family residence or a multi-family rental property can claim a tax credit equal to 10% of the total eligible costs incurred during the tax year, not to exceed \$2,000.

SB45 works in tandem with larger efforts by the environmental and climate community to decrease the energy demands and resulting emissions from the building sector. Additionally, the focus on mitigating the costs of energy efficiency upgrades helps make these technologies and home improvements available to Marylanders, particularly low and moderate-income households who are burdened by high energy costs.

Thank you for your consideration of SB45 - Income Tax - Credits for Energy Efficiency Upgrades - Passive Houses. For all the reasons stated above, we urge a favorable vote from the committee.

Comment on Senate Bill O045 for Maryland General A

Uploaded by: Isaac Elnecave

Position: FWA



Comments by Isaac Elnecave of

Phius to

Delegate Vanessa E. Atterbeary,

Chair, Ways and Means Committee

On SB045 – Income Tax Credit Energy Efficient Upgrades Passive Houses

Position: Favorable

January 14, 2022

Phius appreciates the opportunity to submit comments in support of SB045. Legislation such as SB045 helps move the market towards the construction of more energy efficient residences.

Phius (Passive House Institute US) is a non-profit 501(c)(3) organization committed to making high-performance passive building the mainstream market standard. Phius trains and certifies professionals, maintains the Phius climate-specific passive building standard, certifies and quality assures passive buildings, and conducts research to advance high-performance building. Buildings constructed to the Phius standard provide superior indoor air quality, resilience during power outages, and an extremely quiet, comfortable indoor environment. Project teams are increasingly adopting passive building principles and the Phius standard for single-family, multifamily, and commercial buildings to achieve Net Zero buildings.

Projects receiving the Phius 2021 certification are among the most energy efficient buildings and also reduce the energy burden on low-income households, ensure a healthy living environment and provide resilience as Phius 2021 buildings maintain their indoor temperature for a much longer time than buildings built to the energy code.

The following comments will briefly suggest three amendments to the legislation.

1. Suggested Amendments to the Legislation

Phius would like to suggest three amendments to the legislation.

1. **Include Phius as Part of the Definition of Passive House.** Phius (formerly Passive House Institute U S) has developed multiple passive house standards including the current Phius 2021 standard and is an internationally respected passive house standard. Please see below for a description of the Phius standard.
2. **Include a Tax Credit for New Construction.** Passive house standards are an integrated approach to achieving deep energy savings. Because the standard recognizes that the various components (envelope, mechanical and water heating) work together, homes built to the Phius standard use less than half the energy used in homes built to the energy code.

Already, six single-family residences meeting the Phius standard have been built in Maryland (along with a set of Rowhouses in Baltimore). Incentivizing the construction of homes to the Phius standard would form an important part of meeting Maryland's climate goals.

3. **Include a Tax Credit for Home Retrofits to Passive House Standards.** Much like the standard for new construction, the Phius REVIVE standard provides an integrated approach to home retrofits/renovations in which the various components work together to ensure deep energy savings.

2. THE PHIUS STANDARD PROVIDES AN INTEGRATED PATH TO DEEP ENERGY SAVINGS, NET ZERO ENERGY USE AND HEALTHY, COMFORTABLE HOMES.

All buildings built to the Phius standard foreground **five** principles:

- Using continuous insulation throughout the building envelope to minimize or eliminate thermal bridging.
- Building a well-detailed and airtight building envelope, preventing infiltration of outside air and loss of conditioned air while increasing envelope durability and longevity.
- Using high-performance windows (double or triple-paned windows depending on climate and building type) and doors - solar gain is managed to exploit the sun's energy for heating purposes in the heating season and to minimize overheating during the cooling season.
- Using balanced heat- and moisture-recovery ventilation to significantly enhance indoor air quality.

- Minimizing the space conditioning system because of lower space conditioning loads.

Moreover, to receive certification, all residential buildings must meet the criteria laid out in these pre-requisite programs:

- Environmental Protection Agency (EPA) Energy Star Program
- EPA Indoor airPLUS program
- EPA WaterSense Program
- Department of Energy Zero Energy Ready Home program
- ASHRAE 62.2 ventilation requirements

All buildings seeking Phius certification go through a two-part process - design and construction review:

PART 1: Design Review

Certification staff at Phius reviews construction drawings, product specifications, and modeling to ensure that the energy use is below the stringent values specified in the standard. In addition to reviewing energy performance, building envelope components and details are evaluated for moisture and condensation performance. After all issues are resolved, the building is pre-certified (design certified).

PART 2: Construction Review

After pre-certification, actual construction is reviewed on-site by a Phius trained Rater/Verifier who ensures that the building is constructed to the pre-certified plans and that it meets the criteria of the programs listed above. If changes to the design occur, the modeling is updated, and the new energy use of the building must still meet the Phius standards for certification. This process ensures both quality construction and deep energy efficiency.

As a result, multi-family homes built to the Phius standard provide comfort, health, excellent indoor air quality, and resiliency. The passive building methodology provides a cost-effective path for achieving net-zero energy in buildings.

3. CONCLUSION

Thank you for the opportunity to present these brief comments. Phius staff would be happy to provide any additional information.



SB0045 (HB0058) - LOI - Income Tax - Credit for En

Uploaded by: Landon Fahrig

Position: INFO



TO: Members, Senate Budget and Taxation Committee
FROM: Mary Beth Tung – Director, MEA
SUBJECT: SB0045 (HB0058) – Income Tax - Credit for Energy Efficiency Upgrades - Passive Houses
DATE: January 18, 2021

MEA POSITION: Letter of Information

Senate Bill 45 offers a tax benefit for the installation of energy efficiency upgrades in residential structures. The Maryland Energy Administration (MEA) offers the following information on the bill.

MEA estimates that *the bill will require two (2) new employees* to administer this program; a program manager with knowledge of the relevant subject matter, and an administrative position to assist in the processing of applications. MEA already administers a bevy of proven and successful programs. However, MEA would be unable to adopt a new, legislatively-mandated program without additional human resources.

MEA takes no issue with providing a tax credit for a percentage of the total cost of energy efficiency upgrades to a home. It may even be advantageous to adopt a level greater than 10% for low-to-moderate income (LMI) housing, as these houses are more likely to require costly work.

The bill limits the application of the credit to a single year, and the tax credit is non-refundable. Both of these limitations may mitigate the benefit to applicants with lower comparative incomes. Generally speaking, those with lower incomes owe a lesser amount in taxes to begin with. This means that it is likely that some lower income applicants will not be able to realize the full benefit of the tax credit in a single year.

“Passive House” is well established and respected. However, it is *not* a U.S. organization nor is it focused on American buildings. An alternative would seek similar guidance from the Green Building Council that is tailored to the U.S. or Maryland market.

Lastly, MEA notes that eligible energy efficiency upgrades include weatherstripping, that has a very quick cost payback period, but also replacement windows, that have an extremely long payback period. Potentially the bill could limit window replacements to broken windows or single pane windows that are not historic. This would likely increase the efficiency of the program.