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February 25, 2022

Appropriations Committee

Chair - Delegate Maggie McIntosh

Re: HB 806, Building Standards and Emission Reductions – High Performance, State and Local Government Buildings

Position: Favorable with amendments as suggested by the Climate Partners Group

Dear Chair McIntosh and members of the Committee,

Thank you for the opportunity to provide testimony in support of House Bill 806, Building Standards and Emission Reductions. I am currently a Sustainability Director and Architect and am a member of both the AIA, American Institute of Architects, as well as USGBC, the U.S. Green Building Council. I am also a representative on the AIA Large Firm Sustainable Roundtable collaborating with large architecture firms across the country to lead the way to carbon neutrality. I have served as a member of the MD Green Building Council (MDGBC) for three years and am currently serving as a Commissioner for Baltimore City's Commission on Sustainability.

The American Institute of Architects says that ***“Climate change is a health, safety, and welfare crisis. Ignoring it would undermine [architect’s] most critical professional responsibility: to protect our clients, our communities, and our earth.”*** House Bill 806 includes requirements for buildings that are essential components of comprehensive climate legislation that we need – and requires that State buildings lead the way. The provisions work towards Maryland's greenhouse gas (GHG) emissions goal of a 60% reduction by 2030 and net zero emissions by 2045. Locally, these targets align with the goals Mayor Scott announced in January for the City of Baltimore, and globally, it works towards the Paris Climate Agreement targets, those set by Architecture 2030, and adopted by the AIA as the 2030 Commitment.

Reducing GHG emissions in buildings is a critical component to reducing overall emissions in the State. Buildings account for about 39% of the greenhouse gas emissions by sector in Maryland's Greenhouse Gas Emission Inventory ([MDE](#), 2017). The essential components of comprehensive climate legislation regarding buildings addressed in House Bill 806 are: 1) Benchmarking, 2) Building Emission Standards for Existing Buildings, 3) All Electric requirements for New Construction and 4) Energy Efficiency. The bill makes references to Energy Efficiency – and I understand there are amendments being considered to clarify energy use reduction targets for new construction and major renovations.

1. **Benchmarking** is the most important first step. It sets the baseline and creates the path, it is about transparency and accountability and overall, it increases awareness of energy efficiency. We cannot get to where we want to go (a zero GHG emissions goal by a certain date) without knowing where we are starting and measuring our progress along the way.
 - Benchmarking is required in states and jurisdictions across the country as can be seen in the [map](#) by the Institute for Market Transformation (IMT). IMT also has a [fact sheet](#) that lists other benefits of benchmarking and how it transforms the market.
 - State buildings already report data to the [State Energy Database](#).

2. **Building Performance Standards (BPS)** for existing buildings cannot happen without Benchmarking. After a baseline is set, and a mechanism is in place for reporting, BPS provides a target EUI, (energy use intensity) for each building type to ensure that our existing building stock is on a path to reduce energy consumption and greenhouse gas emissions by the State’s overall target goal and year. The State will not be able to meet its overall climate goals without addressing energy performance of the existing building stock.
 - The American Council for an Energy Efficient Economy says BPS are “a key policy for achieving climate goals” ([ACEEE](#), 2020).
 - The Federal Government has also recently launched a Building Performance Standards Coalition – a partnership of State and Local governments that currently includes Annapolis, Montgomery County, and Prince Georges County in Maryland ([Whitehouse.gov](#)).

3. The **All-Electric** provision in HB 806 sets requirements for new buildings to meet water and space heating demands without the use of fossil fuels. “Direct fuel use in ... buildings accounted for 18% of Maryland’s ... greenhouse gas emissions” ([MDE](#), 2017), and any path to carbon neutrality and reaching any overall goal of zero greenhouse gas emissions will need to include this move away from fossil fuels.
 - Moving to an all-electric code is in line with the AIA’s 2030 Commitment which states “All new buildings, developments, and major renovations shall be carbon-neutral by 2030... Carbon-neutral [means] using no fossil fuel GHG emitting energy to operate...Eliminating these emissions is the key to addressing climate change and meeting Paris Climate Agreement targets.”” ([Architecture 2030](#)).

4. **Energy Efficiency** is a critical link with all these strategies. As mentioned, there is reference to energy efficiency through the bill and I understand amendments are being considered for inclusion. In addition to the elimination of fossil fuel use in our buildings, we need to address total energy use of buildings, by requiring that buildings being constructed now - are energy efficient. Buildings account for **39%** of Maryland’s total energy consumption ([EIA](#), 2019) - the same percentage reported as GHG emissions by sector in Maryland’s Greenhouse Gas Emission Inventory ([MDE](#), 2017). The EPA also states that Carbon Dioxide makes up about 80% of the total US GHG emissions, ([EPA](#), 2019). And when we zoom into an urban area like Baltimore, building’s account for about 70% of the total carbon dioxide emissions in the City.

New buildings, once built, will be our future *existing* building stock that will need to comply with the Building Performance Standards. Modeled energy use savings in the design of new buildings will be greenhouse gas emission savings in the future. Energy efficiency measures also help to reduce operating costs - and we know the cost of construction and inflation is a huge topic in the industry today. **Overall, energy reduction is the lowest hanging fruit. The cleanest, greenest, least emitting, most affordable, energy – is the one we don’t use. Reducing energy has a multitude of benefits. It:**

- Reduces greenhouse gases - Providing cleaner healthier air for all
- Reduces demand on electric grid - Allowing the switch from fossil fuel to electricity without increasing demand on the grid
- Reduces operating costs – saving money over the life of the building
- Can help to address energy equity and energy burdens
- Puts building owners on an easier path to meet the future Building Performance Standard
- Makes adding renewable energy like PV easier in the future as the overall demand is less

Energy Efficiency was mentioned 99 times in Maryland’s 2030 Greenhouse Gas Reduction Act which calls for reducing GHG emissions from residential and commercial buildings through energy efficiency ([GGRA](#), 2021). Energy Efficiency was mentioned 24 times in the MD Climate Change Commission’s Buildings Transition Plan which states that “Annual electricity consumption in Maryland is projected to remain

constant as increasing demand from buildings ... is offset by energy efficiency” ([2021](#)). **The Maryland General Assembly notes that “energy efficiency is among the least expensive ways to meet the growing electricity demands of the State” ([Maryland.gov](#)). And the American Council for an Energy Efficiency Economy reports that “Energy Efficiency Can Cut Energy Use and Greenhouse Gas Emissions in Half by 2050” ([ACEEE](#), 2019).**

As a sustainability architect and advocate – I am excited about HB 806 and the positive impact this bill will have as part of the State’s overall comprehensive Climate legislation. It ensures that Maryland is doing its part to meet the climate targets needed; holds the State accountable; and it protects our State’s finances, the natural environment, and most importantly, the people.

I look forward to the favorable passing of this bill.

Sincerely;

A handwritten signature in black ink that reads "Lisa M. Ferretto". The signature is written in a cursive style with a large initial "L" and "F".

Lisa M. Ferretto, AIA, LEED AP BD+C, WELL AP, Eco-Districts AP, GGP