Testimony to MD Senate February 13, 2025 Miriam Hamilton, Ph.D.

Members of the Senate, thank you for this opportunity to offer my view of the SB256 Amendments. I am the Vice-President of the Board of Directors at the Promenade Towers Cooperative Housing Corporation, a 1071-unit co-op in Bethesda built in 1973. I am encouraged by the addition of amendments to SB246 that will make meeting the state BEPS regulation more feasible for condo and co-op buildings in our state. However, the Promenade is a 51-year-old building that faces constant structural and system repairs. Consequently, our shareholders are poorly positioned to pay extraordinary costs associated with BEPS compliance. I want to explain why these amendments are so necessary.

Amendment 1: Exempt counties that already have county BEPS regulations from Maryland BEPS.

Our condo and co-op communities in Montgomery County have spent long hours working with county councilmembers to help them craft a version of BEPS that will help us lower carbon emissions and energy consumption without bankrupting our shareholders or owners. The state's imposition of additional standards and milestones poses complications to planning and execution that will confuse and detract from adoption of future efficiency measures. Moreover, state fines for non-compliance will rob funds for energy efficiency measures that might otherwise be implemented (Amendment 2A). By exempting us, we can focus on the county's goals.

Amendment 2A: Remove Site EUI Penalties or Alternative Compliance Fees (ACF)

Our building's constant upkeep is paid through an annual reserve budget that is devoted entirely to replacement of major components. Consequently, additional purchases beyond those in our carefully crafted reserve study trigger shareholder assessment increases. Note that our building recently raised assessments by 9.9% and encountered fierce objections and criticism for doing so, and we can only imagine opposition to additional millions in site EUI penalties that must come directly from our shareholders' pockets.

Furthermore, since 2024, many buildings in Montgomery County have consistently committed to lowering energy and carbon emissions by hiring energy contractors to perform audits and commissioning of our Building Automation Systems (BAS). While we discuss potentially replacing gas boilers with heat pumps, we encounter expensive new technology that is immature with inadequately tested implementations, plus the bonus of higher electricity bills. Some buildings will additionally pay heavy-up charges from utility companies to upgrade capacity that can cost them millions more. Yet after all of this effort to lower carbon emissions we will be rewarded with penalties by the state of MD for noncompliant EUI.

Respectfully, we point out that penalties rob communities of resources that many of us don't have, and for buildings in possession of such resources, their money could be otherwise redirected toward reducing energy or carbon emissions.

The below graphic depicts BEPS greenhouse gas (GHG) penalties that the Promenade will face if proposed amendment 2A is not adopted:

Alternative Compliance Penalty Exposure - GHG Only				
2030 - 2034 GHG – No Changes	\$1,106,333			
2035 - 2039 GHG – No Changes	\$1,915,260			
Cumulative GHG – No Changes	\$3,572,313			
2030 - 2034 GHG - Efficient Measures Implemented	\$866,323			
2035 - 2039 GHG - Efficient Measures Implemented	\$951,219			
Cumulative GHG – Efficient Measures Implemented	\$2,019,784			

Our building is firmly on the path to capture low cost/no cost efficiency measures and continues to explore potential capital projects at much higher cost. That said, a nine-year price tag of \$2.02M is grossly unfair while we execute every measure within our grasp to improve efficiency and electrify where feasible.

Site EUI and GHG penalties taken together result in a 9-year price tag of \$4.8M, or approximately the price of new 90% efficient replacement boilers that are scheduled 5 years from now in our reserve plan. For us, this penalty is wasted money:

Alternative Compliance Penalty Exposure - GHG + Site EUI				
2030 - 2034 Combined – No Changes	\$3,777,197			
2035 - 2039 Combined – No Changes	\$7,337,924			
Cumulative Combined – No Changes	\$13,284,546			
2030 - 2034 Combined - Efficient Measures Implemented	\$1,582,039			
2035 - 2039 Combined - Efficient Measures Implemented	\$2,537,925			
Cumulative Combined - Efficient Measures Implemented	\$4,812,211			

Amendment 3: Cap Site EUI and GHG Reduction requirements.

Montgomery County BEPS regulations will cap site EUI reductions at 30% to limit dollar outlays required by buildings to meet BEPS. Such a cap then will exist in perpetuity as owners attempt to achieve it. For many buildings, current law requires much greater energy reductions, and this the cap will be very beneficial.

But to provide a sense of scale as to how expensive even this cap will be, we consult the AOBA presentation, "Overview of Maryland & Montgomery County Building Energy Performance Standards," February 1, 2024 to determine measures that will achieve the 30% in site EUI savings (see entries in Table 5 below):

Insulate DHW pipes – Site EUI savings 4%
Install programmable thermostats – Site EUI savings 1%
Upgrade lighting – Site EUI savings 1%
Ensure air barrier continuity – Site EUI savings 6%
Partially upgrade HVAC – Site EUI savings 19.3% (replace 1 out of 3 boilers with heat pump technology)

Based on the table, these measures will cost an average of \$8.90/sq ft or for the Promenade, a 1.36M sq ft building, a cost of \$12M at today's prices.

Montgomery County

Table 5 shows the package of selected measures from Table 4 for Montgomery County BEPS compliance.

Table 5: EEM package for Montgomery County BEPS compliance

		Annual Energy and Cost Savings						Payback with Incentives	
#	Name	Site EUI Savings (%)	Electric Savings (kWh/Yr)	Natural Gas Savings (therms/Yr)	Direct GHG Emissions Savings (kgCO ₂ e/SF)	Measure Cost /SF	Lifespan (Years)	Simple Payback (Yrs)	
1	DHW Piping Insulation	4%	-	3,000	0.25	\$0.21	15	4	
2	Programmable Thermostats	1%	5,800	700	0.05	\$0.30	10	EUL	
3	Lighting Upgrade	1%	19,600	-	0.00	\$0.31	10	7	
4	ENERGY STAR Doors and Windows	14%	23,200	9,300	0.78	\$5.84	20	EUL	
5	Air Barrier Continuity	6%	4,200	3,900	0.33	\$2.85	20	EUL	
6	ERV Installation	-2%	-9,500	-900	-0.07	\$2.42	15	EUL	
7	HVAC System Upgrade	28%	-163,700	25,500	2.13	\$16.11	15	EUL	
	TOTALS (All Measures)	52%	-120,400	41,000	3.47	\$28.04		-	

To achieve the 30% reduction in carbon emissions, our current levels must be reduced by $0.3 \times 3.5 \text{kgCO2e/sq}$ ft = 1.05 kgCO2e/sq ft. This can be accomplished by executing the following measures:

DHW System Upgrade – savings 1.46 kgCO2e/sq ft. The measure adds 213,600 kW-hr/year for average building or a 6% increase in our energy budget. Alternatively, we can implement the following group of measures at no increase in electricity:

Install programmable thermostats – savings 0.05 kgCO2e/sq ft Ensure air barrier continuity – savings 0.33 kgCO2e/sq ft Insulate exterior wall– savings 0.66 kgCO2e/sq ft

Maryland

Table 6 shows the package of selected measures from Table 4 for Mayland BEPS compliance.

Table 6 EEM package for Maryland BEPS compliance

Annual Energy and Cost Savings							Payback with Incentives	
#	Name	Site EUI Savings (%)	Electric Savings (kWh/Yr)	Natural Gas Savings (therms/Yr)	Direct GHG Emissions Savings (kgCO ₂ e/SF)	Measure Cost /SF	Lifespan (Years)	Simple Payback (Yrs)
1	DHW Piping Insulation	4%	-	3,000	0.25	\$0.21	15	4
2	Programmable Thermostats	1%	5,800	700	0.05	\$0.30	10	EUL
3	Lighting Upgrade	1%	19,600	-	0.00	\$0.31	10	7
4	ENERGY STAR Doors and Windows	14%	23,200	9,300	0.78	\$5.84	20	EUL
5	Air Barrier Continuity	6%	4,200	3,900	0.33	\$2.85	20	EUL
6	ERV Installation	-2%	-9,500	-900	-0.07	\$2.42	15	EUL
7	HVAC System Upgrade	28%	-163,700	25,500	2.13	\$16.11	15	EUL
8	Plumbing Upgrade	<1%	7=0	400	0.03	\$0.45	3	EUL
9	Exterior Wall Insulation	12%	12,600	7,900	0.66	\$12.19	20	EUL
10	DHW System Upgrade	14%	-213,600	17,500	1.46	\$16.26	15	EUL
12	Cooking Fuel Conversion	<1%	-7,700	400	0.04	\$3.28	30	EUL
	TOTALS (All Measures)	79%	-329,100	67,700	5.66	\$60.22		

The cost for 30% carbon emission reduction is \$15.34/sq ft or \$20.86M for a 1.36M sq ft building, and the two reductions together will cost the Promenade \$32.86M. At today's dollars, this cost would require assessment fee increases over eight years of \$3k on average per year per Promenade household, or an average monthly increase of 15%.

Imagine no cap on our buildings – that is where we are without this amendment. Fee increases could be required of 20% and more – levels that will prompt our shareholders to sell and move out, which is not the desired outcome.

Amendment 4: Require MDE to establish Alternative Compliance Pathways (ACP)

The only alternative compliance pathway today is to force building owners to pay fines. By implementing real alternative compliance paths (ACP) owners will be permitted a waiver for measures that do not pay back (with utility savings) within a specified number of years. I point out that one of the founding principles of BEPS law contains a false premise, that utility savings more than compensate for spending on efficiency improvements or carbon emission reduction. This inaccuracy is obvious as evidenced by prices and payback periods described in the AOBA briefing mentioned earlier, in which most efficiency measures do not pay out before end-of-life is reached. In fact, the example from Amendment 3 for carbon reductions measures shows that only DHW pipe insulation and the lighting upgrade will pay back within 10 years.

However, by instituting a new definition for "specially designated buildings" to replace "under-resourced buildings" as a category for common ownership communities, a 10-year payback period can be required in order for condos and co-ops to implement the measure.

We need both aspects of the amendment to ensure that our communities continue to lower carbon and overall energy consumption while avoiding a mass exodus of residents and personal bankruptcy.

Amendment 5: Require MDE to complete case studies that represent a broad representation of building classes in Maryland.

It is clear from the current regulations that MDE did not explore actual costs because they would have found what our own cost studies did – that an average, older building in Montgomery County must spend millions to comply with current state BEPS regulations.