



February 10, 2026

Chair Feldman  
Education, Energy, and Environment Committee  
Maryland State Senate  
2 West Miller  
Senate Office Building  
Annapolis, Maryland 21401

**RE: Testimony in Support of SB 342 – Maryland Beverage Container Recycling Refund and Litter Reduction Program.**

Dear Chair Feldman, Vice Chair Kagan, and Members of the Maryland Education, Energy, and Environment Committee:

Thank you for the opportunity to submit testimony in support of SB 342.

Just Zero is a national environmental nonprofit advocacy organization that works in partnership with communities, policymakers, scientists, educators, and organizers to advance just and equitable solutions to climate-damaging and toxic production, consumption, and waste systems. We believe all people deserve Zero Waste solutions that deliver zero climate-damaging emissions and zero toxic exposures, while strengthening local economies and public health.

SB 342 creates a beverage container recycling refund program—commonly known as a Bottle Bill. Just Zero supports Bottle Bills because they are among the most effective tools available to reduce litter, dramatically increase recycling rates, create local jobs, and build the consumer behavior and infrastructure needed to support reuse and refill systems. If enacted, SB 342 would deliver significant environmental, economic, and community benefits for Maryland.

This testimony is organized into two sections. The first outlines the proven benefits of these programs, including their impact on litter reduction and recycling. The second addresses and responds to common arguments raised in opposition to Bottle Bill programs.

**I. Bottle Bills Provide Significant Environmental and Economic Benefits**

Bottle Bill programs unequivocally reduce litter, increase recycling, and create jobs. These programs also create the consumer culture and infrastructure necessary to shift away from single-use disposal beverage containers to reusable and refillable beverage systems. Importantly, through producer responsibility requirements, Bottle Bill programs provide these benefits while saving consumers and local governments money.

**A. Litter Reduction**

By placing a refundable deposit on every single-use beverage container sold in Maryland, consumers are incentivized to recycle their empty containers. This is extremely important



because most single-use beverages are consumed on-the-go outside of home which is why you see plastic beverage containers littering parks, streets, and streams, but not things like plastic peanut butter jars. Essentially, the refundable deposit creates an understanding that while you are buying the beverage, you are renting the container. This mental shift changes behavior and leads to a dramatic reduction of litter in the environment.

The success of litter reduction through this policy is evidenced in the ten states that have existing Bottle Bills. After Hawaii enacted a Bottle Bill program in 2005, the number of littered beverage containers collected around Hawaii’s waterways fell from 23,471 in 2004, to 8,200 in 2008—a 65% drop in just four years.<sup>1</sup> A 2020 study found that states without Bottle Bills have double the amount of beverage container litter than their Bottle Bill counterparts.<sup>2</sup> The report also found that states with Bottle Bills had less overall litter.<sup>3</sup>

Less litter doesn’t just mean cleaner, more vibrant communities, it also means less spending on clean-up efforts. Estimates show that the United States spends more than \$11 billion on litter clean up every year.<sup>4</sup> In Maryland, residents spent \$17.7 million in 2024 on litter removal on state highways alone.<sup>5</sup> That figure represents only a fraction of the true cost of litter as it does not include spending on county and local roads, waterways, parks, or other public spaces.

#### B. Increased Recycling of Beverage Containers

Though the ten Bottle Bill states only represent 27% of the U.S. population, they account for over 50% of all beverage containers recycled annually nationwide.<sup>6</sup> On average, states with Bottle Bills have double the recycling rates than those that rely solely on curbside recycling programs.<sup>7</sup> For plastic and glass bottles, Bottle Bill programs achieve recycling rates that are three times higher than single-stream recycling systems.<sup>8</sup>

While curbside recycling is convenient, contamination is a significant problem because it is operated as a single-stream. Single-stream recycling depends first and foremost on educated consumers making the right choice about what can and cannot go into the blue bin. Then the burden is on Material Recovery Facilities (“MRFs”) to remove any unrecyclable materials while also processing and sorting the commingled recyclables into distinct separate streams. These sorting processes are imperfect, so roughly 25% of what is placed into the single-stream recycling system ends up being too contaminated to go anywhere other than a landfill.<sup>9</sup>

<sup>1</sup> Haw. Dep’t of Health, [Report to the Twenty-Fifth Legislature 2010, Deposit Beverage Container Program](#), 6 (Dec. 2009).

<sup>2</sup> Keep America Beautiful, [2020 National Litter Study](#), 3 (May 2021).

<sup>3</sup> *Id.*

<sup>4</sup> Andrew Lisa, [It Costs Over \\$11 Billion Per Year to Clean Up Litter – How the Pandemic’s Effect on Trash Output May Make It Worse](#), Yahoo (April 22, 2021).

<sup>5</sup> Maryland Department of Transportation, [Maryland State Highway Administration Litter Fact Sheet](#).

<sup>6</sup> Marissa Heffernan, [Report: Bottle bill states recycle more, provide models](#), Resource Recycling (Jan. 2, 2024).

<sup>7</sup> Container Recycling Institute, [U.S. Nominal Recycling Rates by Deposit Status](#) (2019).

<sup>8</sup> *Id.*

<sup>9</sup> Maggie Koerth, [The Era of Easy Recycling May be Coming to an End](#), FiveThirtyEight (Jan. 10, 2019).



Bottle Bill programs, on the other hand, evade contamination by properly sorting recyclable materials on the front end. This results in higher quality recycled material, significantly increasing its ability to be made into new products and avoiding downcycling. Downcycling is when material collected for recycling is used for purposes that fail to capture the full environmental and economic benefits associated with recycling. In the case of beverage containers, the highest and best use is bottle-to-bottle recycling, where containers are recycled directly into new beverage containers. Common examples of downcycling include turning plastic beverage containers into carpet and textiles and using glass beverage containers for road improvement projects or landfill cover. While these uses are preferential to disposing of the material, it still means the materials can only be used once as opposed to being recycled repeatedly.

Creating a standalone Bottle Bill program to collect and recycle beverage containers ensures that the materials are uncontaminated and able to be readily recycled. Moreover, Bottle Bill programs lead to higher overall recycling rates. Removing beverage containers from the residential recycling system allows municipalities and recycling operators to focus their efforts on capturing and recycling other less commonly recycled materials.<sup>10</sup>

### C. Job Creation

Bottle Bills create good, local jobs. Reports show that Bottle Bills can create between 11 and 38 times more jobs than curbside recycling.<sup>11</sup> These jobs include technicians to service collection systems, storage systems, and sorting systems. Bottle Bills also create jobs associated with hauling beverage containers from redemption locations to centralized storage areas. Other indirect jobs associated with increased recycling and manufacturing of products from recycled materials are also created. A recent analysis of New York's Bottle Bill program found that it supports 5,700 jobs statewide.<sup>12</sup> In Massachusetts, a report found that the existing Bottle Bill system supports nearly 1,500 jobs related to returnable beverage containers, contributing significantly to the state's economy.<sup>13</sup>

### D. Creating a Pathway to Reusable and Refillable Beverage Systems

Reusable and refillable systems are a straightforward way to reduce trash in the waste stream overall. Bottle Bill programs develop the infrastructure and consumer culture necessary to support reusable and refillable beverage systems. Historically, beverage companies relied on consumers to return bottles to be refilled. Because glass bottles were expensive to manufacture, refilling existing bottles meant savings for companies. To encourage refilling, beverage

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<sup>10</sup> Eunomia, [The 50 States of Recycling: a State-by-State Assessment of US Packaging Recycling Rates](#), 6 (Dec. 2023).

<sup>11</sup> Reloop, [Factsheet: Deposit Return Systems Create More Jobs](#), 2 (2022).

<sup>12</sup> Sarah Edwards, Eunomia Research and Consulting, Inc., [Employment and Economic Impact of Container Deposits](#), table E1 (Jan. 2019).

<sup>13</sup> Container Recycling Institute, [Massachusetts Container Deposit Return System: Employment and Economic Impacts in the Commonwealth](#) (June 2017).



companies utilized a deposit-return program to ensure glass containers were brought back and refilled. Now, with the drastic change in production and consumer culture, global companies—which dominate the beverage market—no longer have a financial incentive to support refill systems. Voluntary programs don’t work even when it is a program pushed by a government as shown in Oregon. When the state first launched a refillable beer bottle system through its Bottle Bill program, it initially reported a diversion of 407,840 bottles from recycling for reuse in 2019.<sup>14</sup> Unfortunately the program has now stalled because it is entirely voluntary.

SB 342 shows that Maryland learned from Oregon’s mistake by requiring at least 10% of all beverage containers sold in Maryland to be returned and refilled by December 31, 2034. Just Zero strongly supports this mandate because it is a necessary and achievable program goal as demonstrated by other countries. For example, in Germany, 82% of all beer is sold in reusable bottles, 99% of beer bottles are returned for reuse, and 54% of beverages sold in Germany are in reusables.<sup>15</sup> In Brazil, Mexico, and Columbia, refillables account for 24%, 27%, and 54% of the beverage market share respectively.<sup>16</sup> In Ontario, Canada, 84% of beer sold is in refillable bottles collected through the provinces Bottle Bill system.<sup>17</sup>

#### E. Bottle Bills Provide All These Benefits While Saving Residents and Communities Money.

Bottle Bill programs provide these benefits at no cost to consumers or the government. Instead, these programs place the financial responsibility on producers who are the entities creating this problem in the first place by producing and distributing single-use beverage containers. If a Bottle Bill program is developed in Maryland, cities, towns, and residents will no longer be stuck paying to collect, sort, and recycle all these containers. Instead, the large companies that manufacture them will.

## II. **The Arguments Against the Bottle Bill Are Misguided and Unsupported.**

Over the last four years, opponents of the Bottle Bill have raised a familiar set of arguments that have been used in nearly every state considering a beverage container deposit program. These claims are not new, and they’ve been repeatedly examined and debunked.

#### A. The Bottle Bill is Not a Tax, and it Will Not Raise Prices.

Opponents often frame the Bottle Bill as a tax and argue that the program will raise the price of beverages. This is false. The deposit is fully refundable, and evidence from other states illustrates that when redemption is easy and convenient, the overwhelming majority of consumers choose to return their containers to get the deposit back.

<sup>14</sup> Container Recycling Institute, [Exploring refillables in the United States](#), 2 (April 7, 2021).

<sup>15</sup> Upstream, [Beverage Refill and the New Reuse Economy](#) (July 1, 2023).

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*



Additionally, a number of studies analyzing global and U.S. markets show no evidence that Bottle Bills raise the non-deposit price of beverages. A 2023 study comparing beverage sales and prices before and after the introduction or expansion in Bottle Bill states found that there is no definitive evidence that Bottle Bills alone impact beverage sales or prices.<sup>18</sup> Beverage sales and prices in jurisdictions with Bottle Bills are similar to neighboring jurisdictions without these systems, once broader market factors are accounted for.<sup>19</sup> A 2011 study found that the impact of Bottle Bills on beverage prices and consumption was “essentially zero.”<sup>20</sup> A Massachusetts study found no discernable difference in price between beverages in states with and without Bottle Bills.<sup>21</sup> In fact, the study found that beverages often cost more, not less, in states without Bottle Bills.<sup>22</sup> Moreover, the study found that supermarkets with regional operations have remarkably consistent beverage pricing for both deposit and non-deposit beverages across states, regardless of whether the state has a Bottle Bill.<sup>23</sup>

Finally, an economic analysis of the Bottle Bill in Australia in 2021 found that the impact of the program on the food and beverage industry is \$0.<sup>24</sup> While the study acknowledges that the program may impose initial start-up costs for these businesses, those costs were offset by the revenue generated from the recycled materials.<sup>25</sup>

#### B. The Bottle Bill is Necessary and Will Work in Harmony with Maryland’s Existing Recycling System.

Opponents of SB 342 make two closely related—but fundamentally contradictory—arguments against establishing a Bottle Bill in Maryland. On the one hand, they claim the Bottle Bill is unnecessary because beverage containers are already being captured through Maryland’s existing curbside and residential recycling system. On the other hand, they argue that if a Bottle Bill were enacted, it would be devastating to the same recycling system by removing valuable materials and thereby depriving the system of critical revenue. In other words, opponents simultaneously argue that the program is unnecessary while also acknowledging that it would be highly effective.

In response to opponents’ first argument, the data is clear that Bottle Bill programs are necessary to improve recycling rates even with curbside collection. Maryland’s existing recycling system is failing when it comes to beverage containers. Despite the widespread availability of curbside

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<sup>18</sup> Reloop & The Container Recycling Institute, [The Impact of Deposit Return Systems on Beverage Sales](#), 8 (July 2023).

<sup>19</sup> *Id.* at 8.

<sup>20</sup> Jim Dewey, [Analysis of a Florida Beverage Container Deposit Refund System](#), University of Florida – Bureau of Economic and Business Research (Mar. 15, 2011).

<sup>21</sup> The Massachusetts Department of Environmental Protection, [Comparison of Beverage Pricing, Consumer Choice and Redemption System Performance in Massachusetts and Neighboring States](#), 3. (July 2011)

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

<sup>24</sup> Sarah Yanyue Yu, [An In Medias Res Economic Cost-Benefit Analysis of ACT Container Deposit Scheme](#), The Economic Society of Australia (Mar. 2021).

<sup>25</sup> *Id.*



recycling and public recycling receptacles, only about 25% of the approximately 5.5 billion beverage containers sold in Maryland are captured for recycling. This means more than 4 billion beverage containers are littered, burned in incinerators, or disposed of in landfills every year in Maryland. This is not a functioning or effective system for managing beverage containers.

Even the containers that are collected through curbside recycling are not being reliably recycled into new containers. In Maryland, the majority of glass collected through recycling programs is not actually recycled.<sup>26</sup> Instead, it is used as landfill cover or for roads.<sup>27</sup> Beverage containers made from glass, aluminum, and PET are among the most recyclable materials in the waste stream, yet Maryland's current system consistently fails to return them to productive use. Bottle Bills are the only policy mechanism that has been shown, repeatedly and across jurisdictions, to dramatically increase collection rates for beverage containers while producing clean, high-quality recyclable material.

As for opponents' second argument, SB 342 is specifically structured to ensure that the transition to a Bottle Bill does not harm Maryland's existing recycling system. The bill requires reimbursement to public and private MFRs for the collection, transportation, and processing costs associated with any beverage containers that continue to flow through the curbside system. Additionally, the policy landscape in Maryland has changed. In 2025, the legislature enacted an extended producer responsibility program for packaging and paper. This means that MRFs will be compensated for the full costs of recycling by producers, regardless of shifts in material composition. As a result, the old concern that removing certain materials from curbside recycling could raise costs for local governments no longer applies.

### C. The Program is Not Complex and Can Be Successfully Implemented in Maryland Without Harming Retailers.

Opponents argue that the Bottle Bill will be overly complex and place an unreasonable burden on retailers, particularly those required to provide redemption services. Experience from other jurisdictions with Bottle Bills demonstrates that this concern is unfounded. Bottle Bills are neither novel nor untested having been implemented in more than 50 jurisdictions worldwide since 1970, and with new programs continuing to develop.<sup>28</sup> These jurisdictions all have grocery stores, convenience stores, tourism, complex economies, and modern retail sectors. Retailers in a wide range of markets have successfully integrated redemption services into their operations for decades. Today, more than 300 million people live in communities with Bottle Bill programs, a number that continues to grow.<sup>29</sup> Maryland retailers are just as capable in implementing a Bottle Bill system.

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<sup>26</sup> Maryland Department of the Environment, [Maryland Statewide Recycling Needs Assessment](#), p. 6. (Feb. 21, 2025)

<sup>27</sup> *Id.*

<sup>28</sup> ReLoop, [Global Deposit Book 2024: An Overview of Deposit Return Systems for Single-Use Beverage Containers](#), 108 (Dec. 2024).

<sup>29</sup> *Id.* at 13, 22, 72.



SB 342 is also specifically designed with Maryland retailers in mind providing flexibility in how retailers meet redemption requirements. The bill does not prescribe a one-size-fits-all model. Retailers may choose from multiple redemption options, including reverse vending machines, bag-drop systems, outdoor redemption units located in parking lots, or shared redemption systems with nearby retailers in common or centralized locations. This flexibility allows retailers to design redemption services that align with their store layout, surrounding community, staffing, and business model, rather than forcing a single operational approach.

The bill also ensures that retailers are fairly compensated for providing redemption services. Retailers receive a per-container handling fee, set by the Maryland Department of the Environment, to cover the costs associated with collecting, storing, and managing empty beverage containers, including investments in technology such as reverse vending machines where used. Retailers are also fully reimbursed for the deposits they refund to consumers. In other words, retailers are not expected to absorb the costs of the system. Instead, those costs are built into the program and paid through the producer-financed system.

In addition to direct compensation, evidence from Bottle Bill states and international programs shows that retailers offering redemption services often experience increased foot traffic and customer spending.<sup>30</sup> Consumers frequently return containers during shopping trips and use their deposit refunds toward in-store purchases, benefiting retailers rather than harming them.<sup>31</sup>

### III. Conclusion

The time to act is now. This bill will improve recycling, create green jobs, and reduce litter which will protect Maryland's land, rivers, lakes, and oceans. With SB 342, Maryland can create a robust and effective Bottle Bill program that will protect the environment and strengthen the economy. We urge the committee to provide a favorable report on SB 342. Thank you for your time and consideration of this testimony.

Respectfully submitted,

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<sup>30</sup> Clarissa Morawski, [Why Deposits Make Sense for Retailers](#), Resource Recycling (Sept. 2018).

<sup>31</sup> TOMRA, [How Recycling Impacts Shopping Behavior](#) (Feb. 2023).