February 10, 2026

The Honorable Brian Feldman
Chairman
Maryland Senate Education, Energy and the Environment Committee
2 West, Miller Senate Office Building
Annapolis, MD 21401

Re: Testimony for SB0342 – The MD Beverage Container Recycling Refund and Litter Reduction Program

Support with Amendment

Dear Chair Feldman, Vice-Chair Kagan and Committee Members:

The Glass Packaging Institute (GPI) offers the following comments in support of Senate Bill SB0342, which would create a deposit return/recycling refund program for beverage containers in the State, and to answer any questions the committee may have regarding the manufacturing or recycling of glass containers.

GPI is the North American trade association for the glass food and beverage container manufacturing companies, glass recycling processors, raw material providers and other supply chain partners within the industry. GPI and its members work closely with local and state governments throughout the country on issues surrounding sustainability, recycling, packaging manufacturing and energy use. We are working nationally, and in many states to improve the glass recycling infrastructure to help achieve a 50 percent consumer glass recycling rate, and to advance policies that further that goal.

Glass Container Recycling Background
Glass is a core circular packaging material which is reusable, refillable, and endlessly recyclable. Glass containers are largely used for food or beverage products, and glass is the only packaging material generally recognized as safe by FDA for all food and beverage products. Over 70 percent of glass containers are used for some sort of beverage product. Public sentiment strongly rates glass as one of the most supported materials in the recycling stream, and glass has the strongest profile to aid in refillable beverage systems.

The glass container manufacturing industry has a significant stake in the effectiveness of glass recycling programs. Recycled glass is a key component of the manufacturing

process. The industry purchases about 1.8 million tons of recycled glass each year and the average bottle or jar produced in the U.S. contains from 25 to 33 percent recycled glass. Glass made in regions with high glass recovery rates, aided by deposit return systems, have much greater opportunity for more recycled content. For every 10% of recycled glass added to the batch mix, energy usage can be reduced by 2-3 percent, with additional corresponding reductions in greenhouse gas emissions. When you add the benefit of what is a better than 1 to 1 offset of raw materials saved by using recycled glass to make new containers, using recycled glass has significant benefits to the environment of the region and should be prioritized.

Quality and contamination are key differentiators to the value and potential end-markets for recycled glass. We estimate that nearly 60 percent of the glass cullet that makes it back to a container plant for reuse originates from the ten existing bottle bills states, which provide the highest volume of clean, source-separated glass. This separation drastically reduces contamination, increases the value, and provides the best opportunity to return the glass to a manufactured product.

Critically, containers recovered in a deposit return system avoid the most common fate and costs associated with glass in the commingled single-stream system, which is purposeful or passive landfill disposal. Curbside material that flows through many material recovery facilities *can* be recycled into new containers, and several MRFs do so quite well, but it is completely dependent on the capabilities of the facility receiving the material and the yield is far lower.

While less expensive for collection costs, the value of most materials in these single-stream systems, and especially glass, is harmed from the moment the typical recycling truck hydraulic press crushes the mixed load of materials. Glass suffers to a larger degree due to how most MRFs then process the broken glass as a “negative sort”, screening the smaller fragment material into a pile of residuals, while the larger media is sorted whole or in larger segments and baled. The glass commodity is laden with residual contamination, usually shredded paper, small plastics, and other small non-recyclables that may not belong in the bin in the first place.

Often, this leads local government officials and their contract service partners to suggest that the “glass commodity” value is negative. Without context this would appear true based on publicly available indexes, but the contamination is what drives that value down. The glass commodity at most MRFs is going to be 30-50 percent non-glass residue (NGR) and small glass “fines” which are too small for use in bottle furnace and difficult to sort and distinguish from sand or dirt. The secondary glass processor must haul that contamination and pay the landfill tip fee, which is what results in the negative value for the ton of inbound “glass” material. The benefit of a deposit return system is that it preserves positive market value of the glass, dramatically increases yield from the bottle, and ensures the potential of highest best use, while also allowing for a broader variety of end-market uses that include the same ones as single-stream.

As we have testified previously before this committee, there are end-markets for glass containers in three neighboring states: Pennsylvania, Virginia and New Jersey. There is glass processing (recycling) in Pennsylvania and a movement to add capacity in New Jersey and Virginia. In addition, one of our member companies has added a pre-cleaning location in Baltimore that can accept more glass than it is currently getting and recently moved and expanded that facility in Elkridge, Maryland. Glass from Maryland consumers should not be going to landfill. A bottle deposit program would triple or potentially quadruple the glass recovery and recycling rate for the state of Maryland and could work on its own or within an Extended Producer Responsibility (EPR) program.

We understand that some will argue that the EPR program can handle what we seek through a complimentary DRS. Our view is the EPR-packaging focused program – which is not built yet – will continue to need to focus primarily on managing the existing infrastructure and may top out at accomplishing a 50-60 percent recovery and recycling rate. Studies from other states and NGOs determined that the policy combination that produced the highest recovery and recycling rates was a curbside EPR that was combined with a beverage container deposit program. In fact, the combined policy was the only option that was found to meet the state's recycling goals. A deposit return system should be contemplated along with the EPR system being considered if Maryland wants to maximize its recycling.

This is even more important for glass. We currently estimate that only one-third of the glass in Maryland is recovered. Montgomery County dual-stream collection aides that number. Our research indicates that a well-constructed EPR program might double that recovery, but the yield loss from the curbside material lost to residual and landfill would mean less than half that would make it back into feedstock for new bottles. A DRS system like that envisioned in SB0342 on top of the EPR would nearly triple the recovery of glass and dramatically increase the quality of the material so that the vast majority would be able to be made into new bottles in the region.

As to the specific provisions in SB0342, we would like to highlight several key points that show this policy concept has advanced considerably over the past several years and need not be compared to systems or debates of the past.

- Most of the responsibility for operating the program is given over to a stewardship organization. There is oversight from the Department of the Environment. This is consistent with best practice principles on modern management of the container deposit program.
    - We believe that more responsibility should be given to the private sector to alleviate the state from managing some aspects that are outlined in the bill.
- The bill includes an Advisory Council that pulls in additional stakeholders who can assist in keeping the program balanced and modern, plus add transparency and accountability.

- Most beverages are included, and traditionally recyclable materials are all included. This is far better than having an exhaustive list and definitions of varieties of beverages in statute that will constantly need to be tweaked and modified to accommodate innovation in the beverage industry.
- Accommodation has been made for a differential redemption value based on size, which is reasonable, and a wide variety of reasonable consumer sized containers are included, as well as a variety of convenient redemption alternatives – drop off centers, bag drop programs and in-person return centers.
    - We believe convenience is a key driver, but not all returns should be forced back into specific retail establishments. We support using incentives and working with cities, counties and commercial real estate to identify locations for redemption in convenience zones. A series of well-placed redemption centers and drop-off locations can alleviate the need to force returns into smaller retail stores.
- We generally do not support provisions that compensate private MRF operators for the "loss" of revenue that may come with the creation of a deposit refund program; however, the provision in SB0342 meets our criteria for a transition system that takes into account the loss of revenue from specific commodity streams being moved away from the curbside system, while also accounting for the savings to the governments attributable to less landfill costs, lower processing expense and higher value to other remaining commodity streams from less contamination.
- I would like to note a concept in the bill that I recall discussing with the Committee a couple of years ago. Deposit return programs are aided by the active involvement of local governments, so we support the concept that a city or county could create their own redemption center(s) and participate in the benefits of the program as long as they meet all the same requirements of the other program contractors.
- We support the encouragement of refill/reuse programs. While the provisions in SB0342 are aggressive, a deposit return and recovery system is an essential element for beverage refill/reuse. Glass containers are an ideal material for meeting those needs, and we support the inclusion of explicit infrastructure funds dedicated to building the washing and sterilization facilities.
- We are seeking additional technical amendments to streamline operations and harmonize with the needs of national and international brands regarding labelling and the phasing in of rates/date and timelines for implementation.

Thank you for your consideration of our views on the central role a container deposit program can provide the State of Maryland in creating a higher quality and effective glass recycling system. We look forward to answering your questions about glass and glass recycling and are committed to working with the Committee constructively to enhance glass recovery and recycling in Maryland. Please do not hesitate to contact us should you have any additional glass or glass recycling questions.

Sincerely,

Scott DeFife
President
Glass Packaging Institute
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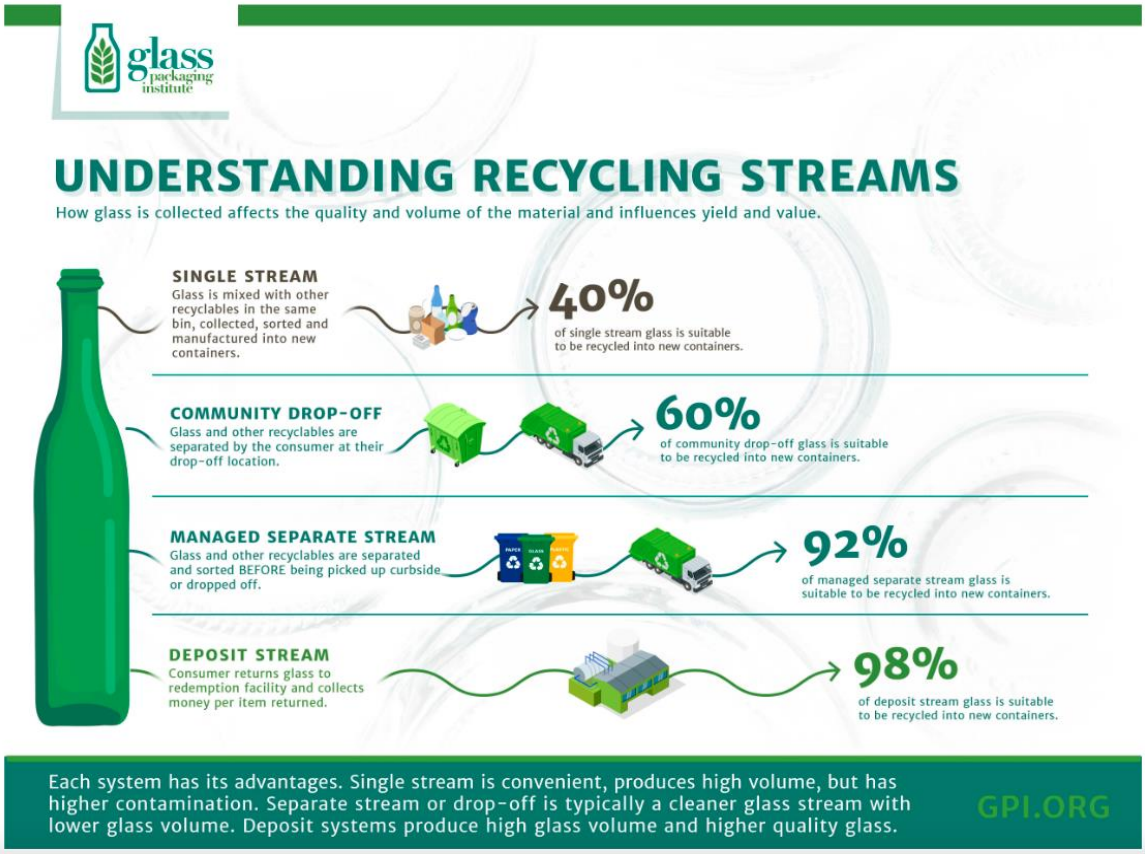
Addendum:
Infographic on Efficiency and Yield-Loss from different glass collection streams



Picture of a Commingled Single Stream Recycled "Glass" - as delivered from a Materials Recovery Facility. Requires intensive sorting and cleaning prior to meeting furnace-ready specifications.

Picture of green bottle bill glass delivered from redemption centers to transfer facility.