



*February 8, 2023*

The Honorable Amy Sheldon  
Chair  
House Committee on Environment and Energy  
115 State Street – Room EA  
Montpelier, VT 05633

### **Testimony for H. 158**

Dear Chair Sheldon and Members of the Committee:

On behalf of the Glass Packaging Institute (GPI), I am pleased to provide information relevant to H. 158, to answer questions about glass containers in the Vermont Beverage Container Redemption System and glass recycling. I will also speak to industry's ongoing efforts to increase the recovery of consumer glass and increase use of recycled glass as part of the glass manufacturing processes.

GPI is the North American trade association for the glass food and beverage 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.

### **Glass Container Recycling Background**

Glass is a core circular packaging material - reusable, refillable, and endlessly recyclable. The vast majority of glass containers are for food or beverage products, and glass is the only packaging material generally recognized as safe (GRAS) by FDA for all food and beverage products. 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 2.3 million tons of recycled glass each year and the average bottle or jar produced in the U.S. contains 1/3 recycled glass. For every 10% of recycled glass added to the batch mix, energy usage can be reduced 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, it is clear that using recycled glass has significant benefits to the environment of the region and should be prioritized.

The glass container industry is serious about increasing the overall national glass recycling rate and making more available for the manufacturing of new containers. The industry has been working around the country to implement ideas that from our 2020 study on the glass supply chain in the U.S. that will allow the country to achieve a national goal of a 50 percent recycling rate by 2030, consistent with objectives set out by the United States Environmental Protection Agency.

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 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.

Vermont's bottle bill program has high glass container recovery rates, that is generally free of contaminants, and in high demand from the two primary end users, the container and fiberglass industries. The most current redemption rate numbers, near 75%, highlight the importance of the program. Our industry values the quality recycled glass recovered from Vermont's bottle bill program.

Glass bottles redeemed through Vermont's bottle bill program are part of a critical supply chain in the manufacture of glass containers and fiberglass insulation throughout the Northeast. Importantly, these bottles avoid the fate and costs associated with landfill disposal. Curbside material that flows through many material recovery facilities *can* be recycled, but it is completely dependent on the capabilities of the facility receiving the material and the yield is far lower. Smaller particles generally less than 3/8<sup>th</sup> inch are referred to as "fines" in the industry and can be used for roadbed, mineral replacement or emerging products such as pozzolan. The benefit of the container redemption system is that it preserves 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 to the provisions on **H. 158**, we have several key points and suggestions that we would like to make to improve upon the recommendation to transition the program to the stewardship of a PRO (Producer Responsibility Organization), as well as answers to some of the most common questions we have gotten in prior years as it relates to glass.

- GPI is not opposed to the concept of shifting responsibility to a PRO. This management system is often used to bring efficiency to operations. If shifting to a PRO, however, we can only support one that has adequate transparency and oversight so that all materials are treated fairly.

- We recommend a stronger provision related to stakeholder input with the consideration of an Advisory Board for the PRO that includes representation from parts of the value chain and variety of materials in the program
- There is no reason to delay the inclusion of wine (p. 2) or study the impacts of including wine bottles (p. 23). They are largely the same as spirits bottles. Wine and Spirits was added to the California system last year and given one and a half years to prepare for inclusion. Similarly, wine and spirits are likely to be added in Oregon as an outcome of their EPR process and are included in new ERP/DRS legislation in Washington State.
- In the same section, on page 23, there is no need to study the redemption value of wine bottles. We can debate .10 cents or .15 cents on different sizes, but that does not require a unique study; they are the same as spirits bottles.
- On page 14, section (3) seeks to establish a system to compensate MRFs for the expansion of the redemption program. This is unnecessary, as the benefits to the overall recycling system outweigh any costs to curbside system. Taxpayers and ratepayers will also benefit from material diversion from landfill, and the remaining material in the single-stream system will benefit from less of what MRFs deem contamination. Investments in any one material cleanup system also improve the quality for other streams, increasing the value of those commodities as well.
- If the Committee is inclined to keep such a compensation system, it must include an analysis of both the costs and the benefits to the system, proven out over time, only apply to the product expansion, and should be more of a time-limited transition provision.
- Similarly, any study in H. 158 of costs related to carbon impacts or operating the system must also include benefits from dramatically increased recycling rates for covered materials and diversion of recyclable material from landfill.
- We are concerned by the language on p. 15 section (8) that speaks to incentives for transportation efficiencies of compaction. This often directly contradicts quality concerns, leading to similar problems that emerge from commingled curbside yield loss and contamination. This also will render containers unusable for refill if they are destroyed.
- Speaking of refill/reuse, we support the encouragement of such programs, but note they require intact containers and investment in washing and redeployment. We encourage the committee to carve out some dedicated funds from the disposition of unredeemed deposits. It will need a stronger push for brands and consumers to adopt it than is suggested now.
- Lastly, there is no need for a study of expanding end-markets for recycled glass (p. 23). All bottle bill material in the Northeast region, including Vermont's current bottle bill glass has strong end-markets. We know what the end-markets are, and they include several bottle plants in the region, as well as fiberglass production facilities as well as aggregate, filtration, highway reflection and other traditional sand substitutes. The bottle bill glass in Vermont has bottle to bottle end-markets in New York, Ontario and Quebec, and possibly Pennsylvania and New Jersey. Those

plants all need more material and have indicated they would welcome wine glass from Vermont.

This brings us to some of the common myths and misinformation brought to the committee in prior years. There is no comparison in the quality of and breadth of end-markets between bottle bill glass and commingled curbside glass. I have included some visuals and graphics that helps explain the differences.

Last session during debate in the House on H. 175, there were suggestions that aggregate replacement has the same environmental benefits as recycling back into containers. This is not accurate. The Northeast Recycling Council's own report on glass hierarchy supports return to new containers as a priority.

We are not suggesting that aggregate replacement does not have environmental benefit, but that is in comparison to traditional concrete, not compared to bottle reuse or recycling. In addition, even if the beverage glass being considered under the expansion is added to the bottle bill program there will still significant volume of food glass containers in Vermont that will be recycled in the commingled curbside system, as well as non-bottle bill glass from neighboring states that can be used for aggregate and construction end-market needs in the region.

Thank you for your consideration of our testimony highlighting the central role Vermont's bottle bill provides for quality and effective glass recycling. 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 Vermont.

Sincerely,



Scott DeFife  
President

Attachments/Addendum

Addendum:

*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*



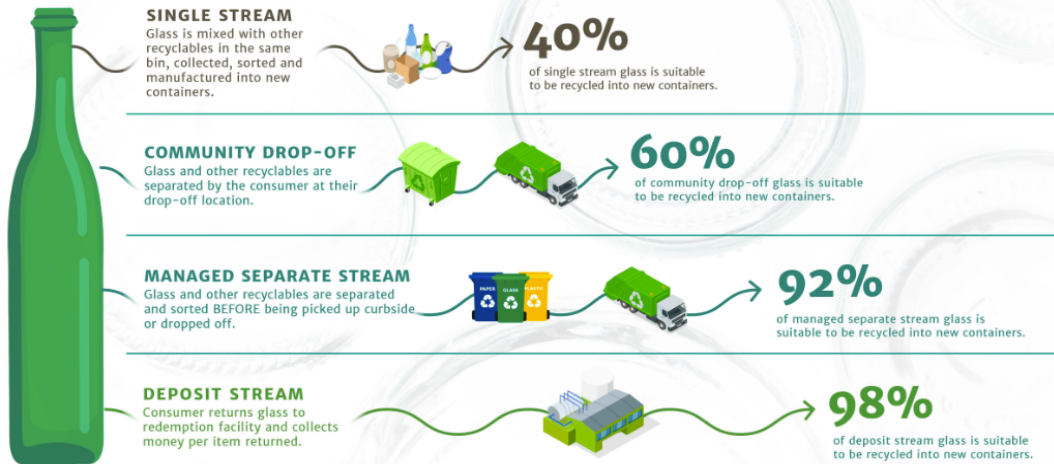
*Picture of color-sorted bottle bill glass delivered from redemption centers to transfer facility*





## UNDERSTANDING RECYCLING STREAMS

How glass is collected affects the quality and volume of the material and influences yield and value.



Each system has its advantages. Single stream is convenient, produces high volume, but has higher contamination. Separate stream or drop-off is typically a cleaner glass stream with lower glass volume. Deposit systems produce high glass volume and higher quality glass.

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