



*March 10, 2021*

The Honorable Janet Ancel  
Chair  
House Committee on Ways and Means  
115 State Street  
Montpelier, VT 05633

### **Supplemental Testimony for H. 175**

Dear Chair Ancel and Members of the Committee:

On behalf of the Glass Packaging Institute (GPI), I am pleased to provide information relevant to H. 175, and to emphasize our ongoing efforts to use recycled glass as part of our members' 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.

We noted several questions related to glass in your hearing on March 9th, 2021, and would be happy to appear before the Committee to answer questions. But in the interest of time, we will cover a couple key points related to glass containers, value, quality and end-markets.

#### **Glass Container Recycling Background**

Glass is a core circular packaging material which is reusable, refillable, and endlessly recyclable. Public sentiment strongly rates glass as one of the most supported materials in the recycling stream. The glass container manufacturing industry has a significant stake in the effectiveness of glass recycling programs. Simply put - recycled glass is a key component of the manufacturing process.

One witness suggested that the Committee should not draw a conclusion that there are sustainable end-markets for recycled glass - this is demonstrably false.

After reuse for refill, the most circular end-market from a sustainability viewpoint for recycled glass is to return that material into new glass containers. The fiberglass industry is also a key, domestic manufacturing end market for recycled glass.

For every 10% of recycled glass included in the manufacturing process, energy use can be reduced 2-3 percent, with corresponding reductions in greenhouse gas

emissions. Numerous studies conclude that glass recycling is a net positive from an emissions and carbon standpoint, and is recognized as such by the U.S. EPA, state and local air and energy authorities.

The glass container industry is serious about utilizing recycled glass as part of our manufacturing processes. The average U.S. glass container produced today contains approximately 1/3 recycled glass and has for decades.

The glass industry has recently completed a study reviewing a variety of policies and programs that advises and provide options on how to reach a national 50% recycling rate by 2030, consistent with markers set out by the U.S. EPA last year. In addition, our industry seeks to increase the percentage of recycled glass content in its bottles and jars to 50 percent.

### **Quality Determines Value and End-Market**

Quality and contamination are key differentiators to the value and potential end-markets for recycled glass. We estimate that nearly 60 percent of the recycled glass 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. 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.

The suggestion by witnesses that the deposit system and curbside single stream are "equal" or competitive recycling streams is very unfortunate and missing a key data point.

Single-stream can work for glass, but even at its best, it will not compete with the quality and value of source separated glass from deposit programs. Not all MRFs are created equal, and minor enhancements at a MRF will make a major difference in quality and end-market options.

Witnesses at the March 9<sup>th</sup> hearing also suggested that down-cycled uses of residual glass are equal options, and that MRF single-stream glass is on par in value with bottle bill glass.

Moving material from a very low-quality lowest common denominator system to a clean, secure, deposit program dramatically increases the market value of the material and makes processing simpler. There are markets for lower-quality material, and they are important, but no one should compare the value or quality of deposit program glass (or frankly other materials) with quality of the majority of single stream MRF sorted glass.

When a typical “ton” of MRF glass is transported, 25-50% of that material is non-glass residuals, solid waste and other recyclables. A MRF that can produce recycled glass streams of 75% glass or higher is meeting some level of the MRF-glass certification program developed using ISRI-standards by the Glass Recycling Coalition. What many landfill operators will not highlight is the benefit of the weight of the glass in their landfill and associated revenue via tipping fees.

The fate and costs associated with landfill glass disposal are not a reflection on the market for glass, they are more accurately described as a reflection for the market of mineral replacement or trash.

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. 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 cost of hauling landfill material from one point to another is an unmeasured cost of the single-stream system as well.

Glass in a single-stream system can easily get “lost” in waste characterization studies more often than other materials due to breakage. These “fines” may not be accurately characterized in these studies because they end up with the “residuals”.

The glass from the bottle bill program has strong regional value, making its way to container plants and furnaces in the region. The MRF glass material must be processed at more robust recycling (processing) facilities outside of the region because so much of the processing capacity for glass in the region is tailored to the cleaner streams.

Our recent research into supply chain gaps and cullet supply suggests that for the entire system, if the MRF facilities cannot or will not get upgraded, then tailoring the intake methods to the processing in the region is the most efficient path to stronger glass recycling performance. In Vermont and much of the Northeast, this would argue for more communities to consider a return to separate streams at curbside in order to improve quality.

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

Sincerely,



Scott DeFife  
President