



March 29, 2013

Bryn Oakleaf
State of Vermont Department of Environmental Conservation
Waste Management & Prevention Division
1 National Life Dr, Davis 1
Montpelier VT 05620-3704

Dear Ms. Oakleaf:

The Glass Packaging Institute (GPI) is pleased to provide follow-up comments to our initially submitted comments of March 12th on the DSM authored, ***Comparison of System Costs and Materials Recovery Rates: Implementation of Universal Single Stream Recycling With and Without Beverage Container Deposits, Mar. 4, 2013 (DSM Draft Report)***

GPI would like to draw your attention to the following four points we request the Agency and DSM consider immediately, and prior to finalization of the Report. It's important to note that our advocacy of these points is in addition and in concert with the 13 points of concern we initially submitted in our March 12th comments. Due to time and costs considerations, we strongly believe these four areas can and should be addressed now:

These comments also provide recommendations on how to strengthen the Report (as is) and mitigate some of the high levels of sensitivity with some assumptions made.

In Vermont nearly all of the recycled glass collected from the bottle bill program is purchased by glass recycling companies, then sold to bottle and fiberglass manufacturers. This program results in large (approximately 14,000 tons annually), consistent volumes of clean, color-sorted glass.

Through the glass container industry's lengthy and involved experience with single stream programs in North America, including Rhode Island, Delaware and Vermont's single stream programs, we have come to understand the results of these programs, and the fact that a significant amount of glass collected in this manner is lost to landfills due to contamination and other issues.

4 Areas of the Report to Address Prior to Finalization:

1) Single stream collection of glass usually results in a large percentage of material loss. The two glass recycling companies that receive Vermont's non-bottle bill glass (via primarily single stream collection) consistently report residual loss rates of **39% and 37%**. This is a very big difference from the 6% loss rate applied to single stream collection in the report.
Recommendation: increase the loss rate of 6% significantly in tables 3, 6, 7 & 8 to better reflect the glass loss rate.

2) **It is inappropriate to include a "special trip cost" in the summary of bottle bill costs.** It should be eliminated from the cost summary for several reasons:

- a. Dedicated trips by consumers to return beverage containers are not a direct system cost.
- b. The consumer cost is one based on choice and can be avoided by simply returning while purchasing other items.
- c. The fact that DSM made the decision to include this indirect cost, but exclude the same indirect cost relating to people that are dropping off recyclables is inconsistent.
- d. The methods used to calculate the 1.5-cent special trip cost are vague and unsubstantiated, with much of the detailed datum not provided. In addition, the sample set of 364 is too small for statistical validity, and the chosen season to run the research occurred right after the Christmas holidays, which is probably the busiest time for large volume, dedicated returns.
- e. This cost accounts for 20%-22% of the total cost of BB and EBB respectively, and will significantly impact the final analysis.

Recommendation: Given how sensitive the values are and the fact that it is not a direct cost, we propose removing "special trips to redeem" from table 9.

3) We are **concerned about the recovery rate projections made in table 5 for single stream recycling**, from which all further analysis is derived. These seem over ambitious and unrealistic. There is no explanation of how they were arrived at. Further, the high projections assume high levels of recycling away-from-home and from bars and restaurants, but these costs do not appear to be factored in. **Recommendation: Add costs associated with away-from-home and commercial recycling to the model and/or reconsider recovery rates that are more in-line with other jurisdictions.**

4) Glass in Vermont is either sent for beneficiation to be mostly used as a substitute for virgin feedstock for new bottles or fiberglass, or it is used as

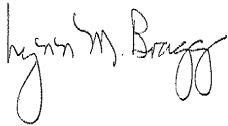
aggregate (i.e. as a substitute material for road bed and asphalt). Utilization of collected glass for eventual aggregate use results in a much smaller net environmental benefit than using it for bottles or fiberglass. Specifically, the net benefit of aggregate substitute is approximately 28 lbs of avoided CO₂e versus 780 lbs of avoided CO₂e for fiberglass and bottles¹.

Recommendation: re-calculate the GHG savings in table 15 with these considerations for glass.

We look forward to working the Department of Environmental Conservation, recycling, manufacturing industries, and all stakeholders to ensure that the most accurate and objective solid waste and recycling analysis can be reached by the state.

Please do not hesitate to contact me with any questions you may have.

Sincerely,

A handwritten signature in black ink that reads "Lynn M. Bragg". The signature is written in a cursive style with a large initial 'L' and 'B'.

Lynn M. Bragg
President

CC: David Mears, Commissioner, Vermont Department of Environmental Conservation

¹ As per MEBCalc, Jeff Morris, Sound Resource Management.