January 14, 2014

The Honorable Jean Wagenius
Chair, Environment, Natural Resources and Agriculture Finance Committee
449 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
Saint Paul, MN 55155

Municipal Solid Waste and Recycling Testimony

Dear Chair Wagenius:

On behalf of the Glass Packaging Institute (GPI), I am pleased to provide the following testimony and information on glass container recycling for the state of Minnesota.

GPI is the North American trade association for the glass container manufacturers, glass recyclers, and suppliers of materials, equipment and transport to the industry.

GPI's members recognize the importance of supporting sustainability initiatives including conserving energy, saving raw materials, reducing air emissions (including NOx, SOx, PM and greenhouse gases such as CO2) and being fully committed to "Reduce / Reuse" in all aspects of plant operations e.g. water, cardboard, lubricants, electricity, etc.

When glass plants can increase the levels of recycled glass as part of the overall batch mix, they can reduce furnace temperatures, resulting in reduced energy use and lower greenhouse gas emissions. This is also true of other packaging and manufacturing industries. For glass, one ton of carbon dioxide is reduced for every six tons of recycled container glass used in the manufacturing process. Energy use at the glass plants also drop about 2-3% for every 10% recycled glass used in the manufacturing process.

Based on the forgoing, it should come as no surprise that GPI member companies are strongly impacted by the outputs of the municipal solid waste and recycling streams. A top priority for GPI is to divert and recycle glass containers currently in the Municipal Solid Waste (MSW) stream, and to ensure that as many containers as possible are re-melted in the production of new glass containers.

GPI has established a 50% recycled content goal for the manufacture of new glass containers. Success in achieving that goal is largely dependent on the strength of the recovery systems that generate recycled materials purchased by our industry. Unfortunately, the current recycled content rate is stalled around 32%. GPI estimates that more than 65% of recycled glass comes from the 10 states with beverage container refund programs.

A prime reason for the success of these programs is that collected containers are kept separate from other recyclables, drastically reducing contamination and providing them

the best opportunity to return to a manufactured product. Accordingly, GPI members are vigorously engaged at the local, state and federal levels to improve collection systems, improve the usability of quality of recyclables for manufacturers and better link collection systems with end markets.

The glass container industry operates a glass container manufacturing facility in Shakopee, along with multiple in-state glass recycling and processing plants, collectively employing hundreds of residents. Accordingly, there is already a ready and robust market for recycled glass in Minnesota and other states.

To better understand recycling systems and efforts, GPI and its member companies, with the engagement of other beverage container industry stakeholders, commissioned a study conducted by Resource Recycling Systems (RRS), to develop models as a tool for policy makers to understand the interaction between a bottle bill system and a comprehensive single stream system.

The primary model developed is not a standard bottle bill system – instead it is a model of an "optimized system", referred to as an Optimized Bottle Bill (OBB) system, comprised of the following elements:

– A network of convenient container recycling depots, in addition to retail locations, where consumers can redeem their containers.
– A provision to compensate curbside collection programs and/or material recovery facilities to keep them cost neutral.
– Retention of the unclaimed deposits and the material values within the system to create a sustainable funding mechanism.

The OBB system was compared to an optimized residential curbside single stream system. The modeled comprehensive single stream system includes the following elements:

– Modeled regions for curbside and drop-off collection based on existing transfer stations and Material Recovery Facility (MRF) infrastructure.
– Assumes collection in all multifamily and rural residential locations.
– Tonnage was estimated for each household based on strong and comprehensive single stream programs.
– An optimal hub and spoke network was created to transfer materials into large efficient MRFs.

Major Findings of the OBB Study:

- **The OBB systems offer cost comparative structures.** OBBs can be comparable in cost to single stream if material revenues are kept by the operator, and in some cases, even if unredeemed deposits are not kept in the system. Even with the revenue reinvestment to keep MRFs cost neutral, OBBs still show lower costs and stronger system-wide financial return than single stream alone.

- **OBBs are estimated to increase statewide recovery by at least 11% over a comprehensive single stream system and recovery of bottle bill materials by 162%.** The deposit incentivizes consumers to recycle the containers, reducing the amount sent for disposal. States with bottle bill programs in place

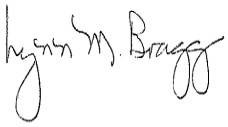
consistently demonstrate high recovery and return rates.

- **Redemption centers reducer pressure on retailers. Redemption centers reduce the material returned to retail by an estimated 50- 80% depending upon populat**ion density. Reducing the impact on retailers has the potential to reduce the overall cost of a system once it is implemented.

- **OBB systems employ sustainable funding mechanisms**. If unredeemed deposits are reinvested into the recycling infrastructure, then OBBs may increase recovery while also creating a sustainable funding source for recycling. OBBs increase the value of the recovered containers because the material is not 'down-cycled' but can instead be turned into new food-grade containers. **On a cost per ton basis, the OBB/single stream combined system is 20-30% lower cost when unredeemed deposits are kept in the system and MRFs are kept cost neutral.**

GPI would like to thank the Committee and legislature for examining recycling and the municipal solid waste system for Minnesota. Please consider GPI and its member companies a resource and advocate for recycling related issues.

Sincerely,



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