March 2, 2016

The Honorable Kumar P. Barve, Chair
House Environment and Transportation Committee
House Office Building, Room 251
6 Bladen St., Annapolis, MD 21401

RE: Support of Maryland House Bill 862 – testimony regarding HB 862 “Maryland Redeemable Beverage Container Recycling Refund and Litter Reduction Act”

Dear Chairman Barve & members of the Environment & Transportation Committee,

The Container Recycling Institute’s (CRI) mission is to make North America a global model for the collection and quality of packaging materials. We study programs and policies that lead to high quantity and high quality of packaging materials at the lowest cost. I’ve been asked to share some of the findings of our research and some perspectives from other locations that have these programs. There are more than 40 container deposit laws around the world.

Beverage Container Deposit Programs Produce Materials that are Higher Quality, in Higher Quantities, and ton-for-ton, the Materials have Higher Value

Containers from Deposit Programs Have Higher Scrap Value because they are Free of Contamination
All recycling is not equal. In terms of quantity, quality and cost, there is a night and day difference between deposit material and mixed-material recycling. The aluminum, PET, and glass industry trade groups all support existing deposit programs because they bring in high quantities of high quality materials.

Sales of deposit glass for high-end uses: The benefits of keeping glass containers in the deposit system and out of curbside recycling are clear. “Only sixty percent of glass coming from single-stream [curbside] programs is useable for making glass bottles or fiberglass. Another 19 percent is undersize material, some of which can be used as road base or landfill daily cover, and 21 percent is a combination of non-glass residue and undersize material, which is not useable and is sent directly to landfill.”¹ Glass has little to no value (typically - $40/ton) when it is collected and processed by single stream curbside recycling programs. In contrast, glass collected through container deposit programs does have value (typically $20/ton) and does find markets in new glass bottles and fiberglass manufacturing.

PET plastics - According to the plastic recycling industry, in NAPCOR/APR’s annual recycling rate report, there are significant contamination problems with single-stream recycling. “The worsening quality

of incoming PET material continues to add significant cost and operational challenges for reclaimers. The impact of non-PET material in PET bales is compounded as it increases because every step taken to remove contamination – whether during material sorting, washing, and processing – invariably leads to some loss of valuable, usable PET material.”

In 2013, reclaimers were still reporting crisis-level contamination, “particularly in bales of PET generated in curbside programs.” This remains a problem because the materials generated by community programs in the United States are “still not sufficient to meet the demand, both current and potential” for good quality recyclable materials. PET from container deposit programs sold for an average of $500 per ton in 2013, compared to an average of $360 per ton for curbside bales. PET plastic is worth 40% more when collected through container deposit programs because of decreased contamination. Although PET scrap prices have been dropping due to the recent drop in oil prices, deposit bales still command a price premium due to their higher quality.

Aluminum – Aluminum faces similar reduction in quality when collected through curbside programs as compared to deposit programs, though not to the same extent as glass and PET plastics. The contamination rate in curbside aluminum bales is in the range of two to eleven percent.

For background, aluminum is the only material type that has a higher scrap value than the cost of recycling, whether it is collected in a curbside recycling program or container deposit program. Aluminum prices have been declining due to overproduction in China.

Curbside Recycling Programs have Limited Ability to Capture Beverage Containers for Recycling

CRI has estimated that no more than 41% by weight of the beverage containers sold in Maryland can be recycled through ONLY curbside recycling programs. This “theoretical maximum” is due to:

- **Away-from-home consumption:** one third (34%) of all beverage containers sold are consumed away from home: at the workplace, in the car and public transit, and in other public places. Those containers are not targeted by the curbside “blue bin.”
- **Losses sustained during sorting:** at the materials recovery facility, an estimated 13% of incoming materials are improperly sorted: they accidentally end up in the wrong bin or bale, or end up as residue/contaminants.
- **28% of incoming material by weight is lost in secondary processing:** during sorting and cleaning, 6% of incoming aluminum is lost, 31% of PET plastic is lost, and 30% of glass is lost. Taken together, the best-case scenario would be that 41% of all beverage containers sold in Maryland could be recycled through curbside recycling programs. Bear in mind that this is a best-case scenario, wherein 100% of all households have curbside access and 100% of them participate in the program faithfully all of the time. In reality, about 75% of Maryland homes have curbside access, and participation rates range widely.

Job Creation & Other Economic Benefits

A deposit law in Maryland would result in the creation of hundreds, if not thousands, of direct jobs in collection and processing, and more in secondary industrial production. It would also result in millions of dollars in increased tax revenues for the State of Maryland.

- **Direct jobs:** In Massachusetts, which like Maryland has a population of 6 million, CRI estimates that there are 600 jobs in the redemption sector alone: people employed to collect used containers from the public, to refund their deposit, and to prepare the material for pickup and transportation to the material processor or end user. While the Maryland bottle bill envisions a different structure for

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3 Ibid.
4 Ibid.
deposit redemption, the direct jobs created would likely be in a similar range: perhaps from 500-1,000 jobs. These jobs would have ripple effects, creating new state tax payments for the state of Maryland.

- **Indirect jobs:** CRI estimates that a bottle bill in Maryland would recycle *over 100,000 tons per year over and above* what is already being recycled today through curbside and other recycling programs. This includes about 9 thousand tons of aluminum, 25 thousand tons of PET plastic, and 70 thousand tons of glass. In deriving these numbers, we assumed an across-the-board 75% redemption rate for both carbonated and non-carbonated beverages that would be covered by the deposit law. These 100 thousand+ tons would represent a significant new source of clean, source-separated, uncontaminated, feedstock that would be highly valued by end users, such as glass bottle plants, PET reclamation facilities, or fiberglass manufacturers. The higher market value of deposit material relative to that of contaminated single-stream curbside material is reflective of the higher demand for deposit material. In other words, industries would be more apt to locate manufacturing facilities in Maryland if significant sources of clean material were made available. These new industries in turn would be a significant new source of corporate income tax for Maryland.

### Container Deposit Laws Save Money for Municipalities

It is a myth that beverage container deposit laws are costly for municipalities. The idea that “curbside recycling programs are robbed of valuable aluminum and PET” is misleading because it cherry-picks one fact while ignoring the economics of the entire system — ignoring the negative commodity value for curbside glass, all collection, processing and landfilling costs, as well as other cost savings to municipalities. Curbside recycling for most beverage containers is expensive. Costs of door-to-door collection, processing of highly commingled (mixed) and compacted material, and litter abatement are expensive, and the revenue generated from these lower quality commodities is significantly lower than source separated “clean” containers which are collected through deposit-return systems. In contrast, the truth is that beverage container deposit laws have been proven to save money for municipalities through collection and processing cost savings, avoided landfill tipping fees and avoided litter collection costs.

One benefit of deposit-return programs is that they do not rely on municipal revenues to fund the system. Instead, most deposit-return programs utilize material revenues and unredeemed deposits to help offset costs. For example, wine and liquor bottles were taken out of curbside recycling programs in the Canadian Province of Ontario in 2007, and added to the existing deposit program. Municipalities advocated for this change, because they wanted to get the glass containers out of curbside programs. After the switch to a deposit program, municipalities realized a cost savings from the reduced glass quantities in curbside programs. In particular, the City of Toronto documented a net savings of $448,000 in 2007; and $381,000 in 2008 due to a reduction in processing and disposal costs. In addition, the recycling rate for those containers increased from 63% from curbside recycling alone to 93% in 2013/14 (80% in the deposit program, and another 13% in the curbside program).

### Container deposit programs relieve municipalities of the operational burdens and financial costs of collecting beverage containers. Lost revenue from material that is currently collected in municipal recycling programs is relatively insignificant when compared to the avoided collection and disposal costs, as well as litter cleanup and storm drain cleanout costs.

- According to analysis conducted by DSM Environmental Services Inc. for the Massachusetts Department of Environmental Protection an expanded bottle bill was estimated to reduce costs for municipalities in Massachusetts, even after netting out potential revenue losses. The final letter report...

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5 For example, deposit PET recently sold for $0.15 per pound, as compared to only $0.09 per pound for curbside glass. The spread is even more pronounced for glass: deposit glass can fetch $20 per ton, whereas it can cost $20 to sell curbside glass to an end user—if markets can be found at all.

6 Amendments to Processing Fees Due to LCBO Deposit Return Program, report to Public Works and Infrastructure Committee from General Manager, Solid Waste Management Services: October 29, 2008.

estimated the total savings to be between $3.8 and $6.5 million dollars annually. Because material is diverted through the bottle bill, “the savings are primarily due to reduced collection and disposal costs.”

- Independent research from the Congressional Research Service (CRS), which prepares reports for the U.S. Congress, states that both a deposit return program and curbside recycling are necessary to achieve high recycling rates and that having both programs result in less costs for curbside recycling. Specifically,

  “Both systems can serve as elements of comprehensive recycling programs. Neither constitutes a comprehensive program by itself. Neither excludes the use of the other.”

  “Deposit systems skim potential sources of revenue from curbside programs, but they also reduce the operating costs of curbside programs. Local governments would appear to achieve greater diversion of solid waste from disposal at a lower cost per ton if both a bottle bill and a curbside collection program were in place.”

- More recent research undertaken in Europe for the Campaign to Protect Rural England (a charity focused on preventing litter in rural England) takes a closer look at the notion that curbside recycling programs and deposit return are mutually exclusive. The report states that this argument is “pure speculation based on the unlikely scenario in which there is no effect on the logistics of the pre-existing system.” In fact, the findings suggest that if the recovery of beverage containers through a deposit return program is very high (as is currently the case in Vermont), then there is limited need to include bottles and cans in a curbside program. The curbside system can concentrate on optimizing the logistics of collecting the remaining materials such as newspaper, phone books, paper, cardboard, and other household-generated container packaging.

- In 1991, the Seattle Solid Waste Utility conducted its own analysis to determine the impact of a national bottle bill on the economics of the City's recycling program, one of the oldest and most successful curbside recycling programs in the nation. The study, titled Potential Impacts of a National Bottle Bill on Seattle's Curbside Recycling Program, found that 42% to 54% more beverage container tonnage would be diverted, while there would be an overall net system savings to the city between $236,917 and $632,774. They concluded, "A bottle bill would divert additional tonnage with no significant impact to either City costs or curbside recycling profits.”

- In the Province of Ontario, Canada, The Beer Store has documented taxpayer savings of $40 million per year, due to the high recycling rate of the deposit-return program for alcoholic beverage containers.

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10 [www.cpre.org.uk](http://www.cpre.org.uk)

11 [http://www.bottlebill.org/about/benefits/curbside.htm](http://www.bottlebill.org/about/benefits/curbside.htm)

About CRI
CRI is a nonprofit organization and a leading authority on the economic and environmental impacts of used beverage containers and other consumer-product packaging. Its mission is to make North America a global model for the collection and quality recycling of packaging materials. We do this by producing authoritative research and education on policies and practices that increase recovery and reuse; by creating and maintaining a database of information on containers and packaging; by studying container and packaging reuse and recycling options, including deposit systems; and by creating and sponsoring national networks for mutual progress. CRI envisions a world where no material is wasted and the environment is protected. It succeeds because companies and people collaborate to create a strong, sustainable domestic economy.

Thank you for the opportunity to submit comments on this bill. Please contact me with any questions you may have.

Sincerely,

Susan V. Collins
President, Container Recycling Institute

Cc:
Representative Kumar P. Barve, Chair kumar.barve@house.state.md.us
Representative Dana M. Stein, Vice-Chair dana.stein@house.state.md.us
Representative Carl L. Anderton, Jr. carl.anderton@house.state.md.us
Representative Pamela G. Beidle pamela.beidle@house.state.md.us
Representative Alfred C. Carr, Jr. alfred.carr@house.state.md.us
Representative Andrew P. Cassilly andrew.cassilly@house.state.md.us
Representative Robert L. Flanagan bob.flanagan@house.state.md.us
Representative William G. Folden william.folden@house.state.md.us
Representative David Fraser-Hidalgo david.fraser.hidalgo@house.state.md.us
Representative Barbara A. Frush barbara.frush@house.state.md.us
Representative James W. Gilchrist jim.gilchrist@house.state.md.us
Representative Anne Healey anne.healey@house.state.md.us
Representative Marvin E. Holmes, Jr. marvin.holmes@house.state.md.us
Representative Jay A. Jacobs jay.jacobs@house.state.md.us
Representative Jay Jalisi jay.jalisi@house.state.md.us
Representative Tony Knotts tony.knotts@house.state.md.us
Representative Stephen W. Lafferty stephen.lafferty@house.state.md.us
Representative Clarence K. Lam clarence.lam@house.state.md.us
Representative Cory V. McCray cory.mccray@house.state.md.us
Representative Anthony J. O'Donnell anthony.odonnell@house.state.md.us
Representative Charles J. Otto charles.otto@house.state.md.us
Representative A. Shane Robinson shane.robinson@house.state.md.us
Representative Kathy Szeliga kathy.szeliga@house.state.md.us
Representative William J. Wivell william.wivell@house.state.md.us

Trish Gagnon, Assistant to Chair