January 21, 2020

Senator Michael Barrett, Senate Chair  
Representative Thomas Golden, House Chair 
Joint Committee on Telecommunications, Utilities and Energy 
Massachusetts State House

H2837: “An Act to increase recycling in the Commonwealth:” Support if Amended  
S1939: “An Act to increase container recycling in the Commonwealth:” Support if Amended

Dear Chairpersons Barrett and Golden, Members of the Committee,

The Container Recycling Institute (CRI) would like to register its support—if amended—of H2837 and S1939, similar bills that would conditionally expand, or update, the beverage container deposit law (or “bottle bill”) to include many non-carbonated beverages. Under these two bills, the expansion/update is contingent upon a comparison between the “diversion rate” for non-carbonated beverage containers currently exempt from the bottle bill and the “redemption rate” for carbonated beverages that are currently covered by the Commonwealth’s bottle bill.

While CRI generally supports expanding/updating deposit laws by adding non-carbonated beverages, we are concerned that the type of comparison called for in H2837 and S1939 may lead to results that may prohibit an expansion/update. With that in mind, we have a series of recommendations for clarifying the language in H2837 and S1939 in order to create a more accurate comparison between the recycling rates for deposit and non-deposit containers. These language recommendations are laid out in Appendix A at the end of this letter. In the following sections, we elaborate on our support of expanding the bottle bill to include non-carbonated containers, and on our concerns about how the “diversion rate” is now defined in these bills.

The current, outdated container deposit law in Massachusetts only includes 40% of the beverages that are sold in the state, and 60% of the beverages are outside of the law. The beverage market has changed considerably since 1983, when Massachusetts’ deposit law was written to include soda, beer and sparkling water. In 1983, non-carbonated beverages—bottled water, energy drinks, sports drinks, and ready-to-drink iced teas—hardly existed. Non-carbonated beverages now dominate the beverage market to such an extent that they have caused the entire beverage market itself to double in size—meaning that the recycling and disposal of used beverage containers poses a much bigger burden for cities and towns than it used to.
1. **At least 30% of beverages are consumed away-from-home and away from the reach of a residential curbside recycling bin.** People travel longer distances to work and spend more time away from home than they used to, and markets to slake their thirst have grown at the same time—with vending machines, convenience store, and check-out counter beverage coolers now being ubiquitous. In the absence of a five-cent deposit on these bottles and cans, and if there is no public-space recycling bin present, most people will throw their non-carbonated beverage bottles and cans in the trash.

2. **The result of excluding non-carbonated, non-alcoholic beverages from the bottle bill** is that about two billion of those bottles and cans are being wasted—landfilled, littered or burned—in the Commonwealth each year.

   This unnecessary wasting occurs because the non-carbonated, non-alcoholic beverage container recycling rate hovers under **25%** in Massachusetts, compared to the recycling rate of roughly **62%** for beer and soda through the redemption rate of roughly **52%** in 2014 and about **10%** additional recycling through curbside programs.

   If the bottle bill were expanded to include non-carbonated, non-alcoholic beverage containers, recycling of those containers would more than double.

   There are numerous **financial and environmental benefits** from expanding the bottle bill, including:

   • **Decreased litter:** Adding a deposit to non-carbonated beverage containers would measurably impact the visual blight of litter statewide, would reduce litter-related harm to wildlife, and would reduce cleanup costs for municipalities and businesses.

   • **Increased job opportunities** in the redemption and recycling industries, and in industries that use recycled material as feedstock. Redemption centers alone employ about 600 people, and hundreds more work in Massachusetts companies that use deposit plastic, glass, and aluminum to make new products.

   • **Savings to municipalities** that now pay to recycle and dispose of non-carbonated beverage container trash. Back in 2015, while analyzing the potential results of nearly identical proposed bills (H2875 and S1752), CRI calculated that municipalities would incur **a net savings of $9 million per year** from a bottle bill expansion to include non-carbonated, non-alcoholic beverage containers. This figure is the net of:

     o **SAVINGS:** $3.6 million in avoided trash disposal costs for previously wasted non-carbonated containers that would be recycled under a deposit system

     o **COSTS:** $5.2 million in lost scrap revenues for non-carbonated containers currently recycled at curbside, but transferred into the deposit system

     o **SAVINGS:** $10.7 million in avoided recycling and processing cost for non-carbonated containers currently recycled at curbside.
• **Energy savings**: additional recycling through an updated bottle bill would result in an estimated reduction of over 600 thousand MBTU of energy now used to replace wasted containers with new ones made from virgin material. This is equivalent to the average annual residential energy consumption of almost 7 thousand homes—**or the entire population of Concord**.

• **A reduction in greenhouse gas emissions** to the tune of 22 thousand metric tons of carbon dioxide equivalent per year. This is like taking **4,400 cars off the road permanently**.

For the forgoing reasons, CRI supports measures to update the bottle bill to include non-carbonated beverage containers.

This being said, **we have concerns about the comparative recycling rate methodology** by which a conditional expansion would be evaluated under H2837 and S1939. We discuss these concerns in the following section.

A. **Concerns about the conditions upon which the expansion (update) depends**

Under H2837 and S1939, the EOEA is directed to compare the “diversion rate” for non-carbonated beverage containers to the “redemption rate” for carbonated beverage containers. The 2020 diversion rate would be calculated not later than 12/31/21. If by 12/31/25, the mean 2-year diversion rate for non-deposit containers for any prior 2-year period is:

• **Less than the redemption rate for deposit containers**, then non-carbonated beverages would be added to the definitions of beverages covered by the deposit law; in other words, **the deposit law would automatically be expanded** (updated) on 7/1/26.

• **Equal to or greater than the redemption rate for deposit containers**, then the definitions would remain as is; **the deposit law would not change**.

Under these bills, the “diversion rate” is defined as: “the per cent rate of empty non-deposit containers which are separated from the waste stream and are intended to be reused or recycled, as determined by the executive office of environmental affairs.”

CRI’s concern is about the phrases “**separated from the waste stream**” and “**intended to be reused or recycled**.” Instead of measuring an actual recycling rate: the percentage of containers actually recycled (used by industries such as PET reclamation plants and glass plants), this definition of diversion counts containers that people **place** in recycling bins, without considering how many of them will be broken, cross-contaminated or improperly sorted. Such a “diversion rate” would count a high percentage of containers as “recycled” when in reality, many of these containers are ending up as contaminants or residue, and are ultimately landfilled or incinerated. **This is even more important now, in 2020, now that the Ardagh glass bottle-making plant has closed, and the glass processing plant owned by Strategic Materials has closed, giving municipalities little or zero options to recycle glass bottles that they collect in Massachusetts.**
By contrast, the carbonated container “redemption rate” is more straightforward than the “diversion rate” just discussed, because deposit material is source-separated, and is so clean and uncontaminated that virtually all of it is actually recycled by end users. This is why secondary materials industries pay higher prices for deposit containers than for non deposit containers collected through curbside programs and separated at materials recovery facilities.

It would be much better if the “diversion rate” as defined by these two bills would count only the non-carbonated beverage containers that actually get recycled through collection, sorting, and processing. Changing the term “diversion rate” to “non-carbonated beverage container recycling rate” would be clearer and more in line with the intent of the bill to increase actual recycling. Other recommended language changes are laid out in Appendix A.

Finally, we are concerned that the “redemption rate” measure by itself, as now set forth in these bills, is inadequate to measure the true amount of recycling of carbonated beverage containers, because it only accounts for deposit containers that are returned for a refund (approximately 52% of those sold), and not those deposit containers that are recycled through curbside and other public or private recycling programs (approximately 10% of those sold). A better term to measure the total recycling rate of carbonated beverage containers would simply be the “carbonated beverage container recycling rate,” as noted in Appendix A.

Our concern is that if H2837 and S1939, as now written, are enacted into law, then an artificially inflated recycling rate (diversion rate) for non-carbonated containers could prohibit the expansion/update of the deposit law, and could thereby limit the Commonwealth’s ability to actually increase its recycling rate.

The Container Recycling Institute urges you to consider these concerns as you evaluate H2837 and S1939. Thank you for the opportunity to submit comments on these bills. Please contact me with any questions you may have.

Sincerely,

Susan V. Collins
President, Container Recycling Institute

Enclosed:
Appendix A: Recommended language changes to H2837 and S1939
About the Container Recycling Institute

Appendix A: Recommended language changes to H2837 and S1939

A. Strike:

13 “Diversion rate”, the per cent rate of empty non-deposit containers which are separated
from the waste stream and are intended to be reused or recycled, as determined by the executive office of environmental affairs.

Replace with:
“Non-carbonated Beverage Container Recycling Rate:” the percent rate of empty non-carbonated, non-deposit beverage containers that are removed from the waste stream and purchased for end use in the recycling industry, after all contaminants have been removed, as determined by the executive office of environmental affairs.

“End use in the recycling industry,” use by industries that manufacture new goods using post-consumer glass, plastic, aluminum, steel, or paper. It does not include use of collected beverage containers as landfill cover, as road bed aggregate, or as residue and/or contaminants that must be landfilled or incinerated.

B. Insert the following new definition:
“Carbonated Beverage Container Recycling Rate:” the percent rate of empty carbonated deposit beverage containers that are removed from the waste stream and purchased for end use in the recycling industry, as determined by the executive office of environmental affairs. The Carbonated Beverage Container Recycling Rate shall include carbonated beverage containers that are redeemed for a deposit refund, and carbonated beverage containers that are recycled through curbside recycling programs and other non-refund-based collection programs.

C. Strike:
31 Section 326A. (a) The secretary shall establish, not later than the first day of January, 2021, a process for determining the diversion rate and the redemption rate. The secretary may establish any guidelines or regulations necessary or expedient to determine these rates.

Replace with:
Section 326A. (a) The secretary shall establish, not later than the first day of January, 2021, a process for determining the non-carbonated beverage container recycling rate and the carbonated beverage container recycling rate.
The secretary may establish any guidelines or regulations necessary or expedient to determine these rates.

D. Strike:
29 b) Not later than the final day of December, 2021, the secretary of environmental affairs shall determine the diversion rate and the redemption rate for calendar year 2020. In each subsequent year, the secretary shall determine the diversion rate and redemption rate for the foregoing year.

Replace with:
b) Not later than the final day of December, 2021, the secretary of environmental affairs shall determine the non-carbonated beverage container recycling rate and the carbonated beverage container recycling rate for calendar year 2020. In each subsequent year, the secretary shall determine the non-carbonated beverage container recycling rate and the carbonated beverage container recycling rate for the foregoing year.

E. Strike:
33 (c) If, by December 31, 2025, the mean diversion rate for any two year period is found by the secretary to be equal to or greater than the mean redemption rate in the corresponding two year period, then this section shall be repealed.

Replace with:
If, by December 31, 2025, the mean non-carbonated beverage container recycling rate for any two-year period is found by the secretary to be equal to or greater than the mean carbonated beverage container recycling rate in the corresponding two year period, then section 326A shall be repealed.

F. Strike:
41 SECTION 6. Section 1 of this act shall take effect on July 1, 2026; provided, however, that if the secretary has determined the redemption rate and diversion rate to have equalized under subsection (c) of section 326A of chapter 94, then Section 1 will not go into effect.

Replace with:
SECTION 6. Section 1 of this act shall take effect on July 1, 2026; provided, however,
that if the secretary has determined the carbonated beverage container recycling rate and the non-carbonated beverage container recycling rate to have equalized under subsection (c) of section 326A of chapter 94, then Section 1 will not go into effect.

* * * * *

About the Container Recycling Institute (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.