December 2, 2015

Hon. Benjamin Downing, Senate Chair
Hon. Thomas Golden, Jr., House Chair
Joint Committee on Telecommunications, Utilities and Energy
Room 473B, State House
Boston, MA 02133

H2875: “An Act to increase recycling in the Commonwealth:” Support if Amended
S1752: “An Act to increase container recycling in the Commonwealth:” Support if Amended

Dear Chairpersons Downing and Golden, Members of the Committee, Sen. Creem, and Rep. Fox,

The Container Recycling Institute (CRI) would like to register its support—if amended—of H2875 and S1752, 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 H2875 and S1752 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 H2875 and S1752 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.
A. The rationale for expanding the deposit law to include non-carbonated beverages

1. The beverage market has changed. In 1983, when Massachusetts’ deposit law was enacted, soda and beer were the only single-serve beverages available. Non-carbonated beverages—bottled water, energy drinks, sports drinks, and ready-to-drink iced teas—hardly existed. That is why the deposit law definition of “beverage” only encompassed “carbonated beverages;” the idea was to exclude things like wine, spirits, and milk. 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. As Figure 1 shows, non-carbonated beverages now comprise approximately 40% of the beverage market, and they are packaged in plastic and glass bottles and aluminum cans that are identical to those of their carbonated counterparts.

2. Consumption patterns have changed. Another trend is that of away-from-home consumption. 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. An estimated one third of all beverages are now consumed away from home and away from the convenience of a residential curbside recycling bin. Many of the away-from-home beverages are non-carbonated. 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.

3. The result of excluding non-carbonated, non-alcoholic beverages from the bottle bill is that about one billion of those bottles and cans are being wasted—landfilled, littered or burned—in the Commonwealth each year: including about 690 tons of wasted aluminum, over 22 thousand tons of wasted plastic, and over 12 thousand tons of wasted glass.

This unnecessary wasting occurs because the non-carbonated, non-alcoholic beverage container recycling rate hovers around 22% in Massachusetts, compared to the recycling rate of roughly 75% for beer and soda through the redemption rate of 65% in 2014 and about 10% additional recycling through curbside programs.

If the bottle bill were expanded to include non-carbonated, non-alcoholic beverage containers, an estimated 25,000 total tons of material now wasted would be recycled.
There are numerous **financial and environmental benefits** from expanding the bottle bill and recycling those 25,000 tons of glass, plastic, and aluminum, including:

- **Decreased litter**: Raising the non-carbonated recycling rate from 22% to 75% would have 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. CRI calculates that municipalities will 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 H2875 and S1752. We discuss these concerns in the following section.

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

Under H2875 and S1752, the EOEA is directed to compare the “diversion rate” for non-carbonated beverage containers to the “redemption rate” for carbonated beverage containers. The 2018 diversion rate would be calculated not later than 12/31/19. If by 12/31/23, 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 7/1/24.

• **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.

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 65% 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 H2875 and S1752, 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 H2875 and S1752. Thank you for the opportunity to submit comments on these bills. Please contact me with any questions you may have.

Sincerely,

Jenny Gitlitz
Consultant to the Container Recycling Institute

Enclosed:
Appendix A: Recommended language changes to H2875 and S1752
About the Container Recycling Institute

Appendix A: Recommended language changes to H2875 and S1752

A. Strike:
11 “Diversion rate”, the per cent rate of empty non-deposit containers which are separated
12 from the waste stream and are intended to be reused or recycled, as determined by the executive
13 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, 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. Immediately after row 23, insert the following text:
“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:
26 Section 326A. (a) The secretary shall establish, not later than the first day of January,
27 2019, a process for determining the diversion rate and the redemption rate. The secretary may
28 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,
2019, 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, 2019, the secretary of environmental affairs
30 shall determine the diversion rate and the redemption rate for calendar year 2018. In each
31 subsequent year, the secretary shall determine the diversion rate and redemption rate for the
32 foregoing year.
Replace with:
b) Not later than the final day of December, 2019, the secretary of environmental affairs shall determine the non-carbonated beverage container recycling rate and the carbonated beverage container recycling rate for calendar year 2018. 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, 2023, the mean diversion rate for any two year period is found by
34 the secretary to be equal to or greater than the mean redemption rate in the corresponding two
35 year period, then this section shall be repealed.
Replace with:
If, by December 31, 2023, 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:
36 SECTION 4. Section 1 of this act shall take effect on July 1, 2024; provided, however,
37 that if the secretary has determined the redemption rate and diversion rate to have equalized
38 under subsection (c) of section 326A of chapter 94, then Section 1 will not go into effect.
Replace with:
SECTION 4. Section 1 of this act shall take effect on July 1, 2024; 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.

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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.