



February 11, 2021

Chair Amy Sheldon  
House Committee on Natural Resources  
115 State Street. Room 46  
Montpelier, VT 05633

**RE: H.175, An Act Relating to the Beverage Container Redemption System.**

Dear Chair Sheldon and members of the House Committee on Natural Resources, Fish, and Wildlife:

Thank you for the opportunity to provide testimony in support of H. 175. Conservation Law Foundation (CLF) is a member-supported non-profit environmental advocacy organization that works to protect the environment and promote healthy communities here in Vermont, and across all New England. Through its Zero Waste Project, CLF aims to improve waste diversion and recycling programs to better protect communities and our shared environment from the dangers of unsustainable waste management practices.

CLF supports H. 175. Container deposit laws are highly effective at increasing recycling rates, reducing litter, creating jobs, and providing needed pathways to refillable container systems. H. 175 would provide several updates to Vermont's existing bottle redemption program which will divert more materials from landfills, increase redemption rates, and decrease the burden on single-stream recycling programs that are increasingly ineffective and expensive.

**I. Container Deposit Laws Work**

I would like to begin by focusing on how and why container deposit laws work. Container deposit laws are the single most effective way to recycle. The success of these programs rests on two primary features.

First, container deposit laws increase redemption rates. That is, they increase the number of recyclable containers that are diverted away from disposal. The deposit places value on the containers which incentivizes consumers to clean, sort, and bring them back. On average, states with container deposit laws have double the recycling rates than those that rely solely on single-stream recycling. According to the Container Recycling Institute, states with container deposit laws recycled aluminum, PET, and glass at a rate of 78%, 59%, and 64% respectively.<sup>1</sup>

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<sup>1</sup> Jenny Gitlitz, *U.S. Container Recycling Rates and Trends*, Container Recycling Institute, pg. 7, (Oct. 2013). Available at <https://www.legis.iowa.gov/docs/publications/SD/698850.pdf>

Conversely, states without container deposit laws recycled these materials at much lower rates, 36% for aluminum, 14% for PET, and 14% for glass.<sup>2</sup>

Second, container deposit laws not only increase the number of materials that are placed into the recycling stream, but they create a higher quality of recycled content. The convenience of single-stream recycling comes with a cost, contamination. Single-stream recycling depends first and foremost on educated consumers making the right choice about what can and cannot go into the blue bin. From there, the burden is on Material Recovery Facilities (MRFs) to remove any unrecyclable materials that made their way into the recycling stream while also processing and sorting remaining commingled recyclables. These sorting processes are imperfect. According to the National Waste and Recycling Association, 25% of what is placed into single-stream recycling is too contaminated to go anywhere other than a landfill.<sup>3</sup>

Additionally, the remaining materials collected curbside that are still technically recyclable may not be getting the most value for the resource based on contamination level. The overall quality of the recycled material is a leading factor that determines what the recycled material is ultimately used for. This difference in quality can be the difference between recycling and down-cycling. This is the difference between processed glass containers being remade into new containers or being used for landfill cover. While both outcomes are preferable to landfilling, the uses do not have the same economic or environmental value.

Moreover, the quality of recycled content is becoming increasingly important. There is an emerging trend of recycled content requirements that will create markets for high quality recycled material. Last year, California passed a first-in-the-nation recycled content law for plastic bottles.<sup>4</sup> Under the law all plastic bottles covered by the state's container redemption program must contain an average of at least 15% post-consumer recycled resin by 2023.<sup>5</sup> The amount of required post-consumer recycled resin increases over time to 25% in 2025, and 50% in 2030.<sup>6</sup> New Jersey is currently considering similar legislation that would set recycled content requirements for plastic beverage bottles as well, but also glass bottles, glass containers, rigid plastic containers, and paper bags.<sup>7</sup> Additionally Coca-Cola and several other beverage manufacturers have set involuntary recycled content requirements for years. These standards are

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<sup>2</sup> *Id.*

<sup>3</sup> Maggie Koerth, *The Era of Easy Recycling May be Coming to an End*, FiveThirtyEight (Jan. 10, 2019), Available at <https://fivethirtyeight.com/features/the-era-of-easy-recycling-may-be-coming-to-an-end/>

<sup>4</sup> Cal. Pub. Res. Code § 14547 (West).

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> New Jersey, S. 2515. Introduced June 4, 2020.

always unmet as the companies argue there is not enough high-quality, food grade recycled content to actually meet these self-imposed goals.<sup>8</sup>

Container deposit laws are the best and perhaps only way to produce the steady stream of clean recycled content necessary to meet these requirements. According to the National Association of PET Container Resources, 88% of PET bottles collected through container redemption programs are converted into “clean flake” – shredded pieces of plastic that are used as the raw material to create new plastic products.<sup>9</sup> Conversely, only 68% of PET bottles collected through curbside recycling programs are converted into clean flake and eligible to create new plastic products.<sup>10</sup> The remaining 32% is either downcycled, landfilled, or incinerated. The numbers are equally as telling for glass bottles. 98% of glass containers redeemed through container deposit programs are recycled into either new bottles or fiberglass. Only 60% of glass bottled collected by curbside are recycled into those new products. This increase in quality is one of the reasons that PET collected curbside typically sells for \$180/ ton, while PET collected through container deposit programs sells double that rate at \$360/ ton. The quality is marketable difference and the price reflect that.

This morning you heard that there is no difference between recycling under container deposit programs and curbside recycling. These statistics show that to be untrue. Container deposit systems increase redemption and the creation of high-quality recycled content that can be used to create new bottles. Additionally, 18,000 tons of glass collected curbside was dumped in Vermont over a five year period. This glass would not have been dumped if it was processed through the bottle bill where 98% of collected containers are recycled into new bottles or fiberglass. Moreover, the 10 container deposit states are responsible for generating one-third of the nations recycled aluminum. Therefore aluminum is not only collected at a higher rate than the remaining 40 states, but is also recycled into a higher quality product.

## **II. Expanding the Container Deposit Law Will Benefit Vermont**

While deposit return systems are highly effective, in many states, including Vermont, they have not been modernized to respond to changes in the beverage and recycling industries. The changes proposed in H.175 will provide needed upgrades that will improve Vermont’s container deposit law while creating new jobs.

### *A. Increasing the Deposit Fee.*

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<sup>8</sup> Stefanie Valentic, *How the Coca-Cola Company’s Recycled Bottle Redesign is Progressing Sustainability Efforts*, Waste360. (February 9, 2021). Available at <http://60.com/sustainability/how-coca-cola-companys-recycled-bottle-redesign-progressing-sustainability-efforts>

<sup>9</sup> NAPCOR, *Report on Postconsumer PET Container Recycling Activity*, 14 (2018), [https://napcor.com/wp-content/uploads/2018/11/NAPCOR\\_2017RateReport\\_FINAL.pdf](https://napcor.com/wp-content/uploads/2018/11/NAPCOR_2017RateReport_FINAL.pdf).

<sup>10</sup> *Id.*

Increasing the deposit for all non-liquor containers from 5 cents to 10 cents is long overdue. If the deposit were tied to inflation when first passed in 1972, the current deposit would be 25 cents. Increasing the deposit fee has proven to increase redemption rates. Currently, two states already place a 10-cent deposit on certain containers. These states – Michigan and Oregon – have redemption rates of 89% and 86% respectively. Additionally, in Norway, where the deposit fee is roughly equal to 25 cents, the redemption rate for bottles and cans is 95%. The most recent data available indicates Vermont’s redemption rate is 75%. However, this redemption rate is from 2013. Since then, every state with container deposit laws similar to Vermont have seen redemption rates decline. Between 2013 and 2019, California and Connecticut saw a 7% decline in redemption rates. Hawaii’s redemption rate fell 12% and Massachusetts rate fell 16% over the same period. Therefore, it is likely that Vermont’s current redemption rate is significantly lower than 75%. Therefore, the deposit should be increased to create a stronger incentive for redemption.

#### *B. Expanding the Scope of Covered Containers.*

Additionally, expanding the scope of covered containers will increase the amount of material that can be captured through this proven and effective system. The current scope of Vermont’s container deposit law has not kept pace with the wide range of beverages on the market. It is estimated that one in every four beverages purchased in Vermont are not covered by the container deposit law.<sup>11</sup> This is unsurprising considering that a large portion of these beverages were not available when the law was first enacted over 40 years ago. Bottled water, tea, sports drinks, and energy drinks are now widely available and heavily consumed products. Bottled water consumption alone illustrates how prevalent these beverage containers are and how we are not doing enough to collect and recycle them.

In 2019, bottled water was the most consumed beverage among Americans.<sup>12</sup> Nearly 14.4 billion gallons of bottled water were sold in the U.S. that year<sup>13</sup> This is a 70% increase from sales ten years prior.<sup>14</sup> As a result, plastic water bottles make up a large portion of the current waste and recycling streams. Estimates indicate that plastic water bottles make up to 51% of the volume of curbside recycling collected nationally, and 68% of volume of containers collected through New York’s expanded container deposit program.<sup>15</sup> Importantly these are only collection rates. They do not reflect the amount of water bottles that are actually recycled or even how these products

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<sup>11</sup> Container Recycling Institute, *A Clean and Green Vermont: Special Report on the Environmental and Economic Benefits of Vermont’s Bottle Bill*, pg. 3, (February 28, 2013). Available at [https://assets.noviams.com/novi-file-uploads/gpi/pdfs-and-documents/Recycling/CRI-VPIRG-A-Clean-and-Green-Vermont\\_2-28-2013-1.pdf](https://assets.noviams.com/novi-file-uploads/gpi/pdfs-and-documents/Recycling/CRI-VPIRG-A-Clean-and-Green-Vermont_2-28-2013-1.pdf)

<sup>12</sup> *Id.*

<sup>13</sup> Jan Conway, *Volume of Bottled Water in the U.S. 2010 – 2019*, Statista, (Nov. 26, 2020). Available at <https://www.statista.com/statistics/237832/volume-of-bottled-water-in-the-us/>

<sup>14</sup> *Id.*

<sup>15</sup> International Bottled Water Association, *Recycling*. Available at <https://bottledwater.org/recycling/>

are recycled. Global estimates indicate that only 7% of collected PET is recycled into new bottles.<sup>16</sup>

By expanding the scope of the container deposit law, Vermont will capture these recyclables materials into a system that is proven to increase collection, recycling, ultimately the production of the high-quality recycled content needed to make new bottles. Maine provides a clear example of the benefits of expansion. Maine expanded the coverage of its container deposit law in 1990. Maine's program now covers all beverage containers except dairy products. This captures 91% of all containers sold in the state.<sup>17</sup> Since expanding the scope of the program, Maine has averaged a redemption rate of 88.8%.<sup>18</sup>

Additionally, I know this morning Ms. Jamieson questioned the findings of the Eunomia report that argued that roughly 15,000 tons of material would be diverted from the landfill under the proposed expansion. Ms. Jamieson argued that the expansion would only capture 1.1% of what is currently going to the landfill. While I am not qualified to speak to the discrepancy in data, even assuming Ms. Jamieson is correct, that is still roughly 7,000 tons that will be diverted annually.

### C. Job Creation.

Container deposit programs create between 11 and 38 times more jobs than curbside recycling.<sup>19</sup> A recent study by Eunomia Research and Consulting, Inc. (Eunomia) concluded that New York's bottle return program—which, like Vermont, places a five-cent deposit on soda and beer—creates the equivalent of 5,700 jobs statewide.<sup>20</sup> Eunomia further concluded that were New York to expand the scope of its program to include all beverage containers, and increase the deposit amount to ten cents, it could create more than 2,000 additional jobs.<sup>21</sup>

## III. Container Deposit Laws and Pave the Way for Refill Systems

Perhaps most importantly, container deposit laws can evolve into refillable beverage systems. While recycling saves natural resources and limits the environmental footprint of creating new

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<sup>16</sup> See, Mathew Taylor and Sandra Laville, *Planet's Addiction to Plastic Bottles "As Dangerous As Climate Change."* The Guardian, (July 31, 2017). Available at <https://www.euractiv.com/section/circular-economy/news/planets-addiction-to-plastic-bottles-as-dangerous-as-climate-change/>

<sup>17</sup> Container Recycling Institute, *Redemption Rates and Other Features of 10 U.S. State Deposit Programs.* Available at [https://www.bottlebill.org/images/PDF/Bottle%20Bill%2010%20states\\_Summary%201.11.21.pdf](https://www.bottlebill.org/images/PDF/Bottle%20Bill%2010%20states_Summary%201.11.21.pdf)

<sup>18</sup> *Id.*

<sup>19</sup> Jeffrey Morris and Clarissa Morawski, Container Recycling Institute, *Returning to Work: Understanding the Domestic Jobs Impacts from Different Methods of Recycling Beverage Containers*, pg. 11, (Dec. 2011). Available at <http://www.container-recycling.org/assets/pdfs/reports/2011-ReturningToWork.pdf>.

<sup>20</sup> Sarah Edwards, Eunomia Research and Consulting, Inc., *Employment and Economic Impact of Container Deposits*, table E1 (Jan. 2019).

<sup>21</sup> *Id.* at table E2.

products, it is not a perfect and it is not what we should be striving for. Large amounts of energy are needed to collect, transport, process, and reassemble recycled materials into new products. Reusing glass bottles requires 93% less energy than recycling. Moreover, these bottles can be reused anywhere from 25-50 times, if not more.<sup>22</sup>

Container deposit laws establish the infrastructure and consumer culture that can chart the path toward reuse over recycling. Container deposit laws were initially designed to reflect a system first utilized by the beverage companies. Before the introduction of one-way disposable containers, beverage companies relied on consumers to return bottles to be refilled. Glass bottled were expensive to manufacturer and refilling saved costs. To incentivize refilling, beverage companies utilized a deposit-refund system. Prior to the 1960's and the explosion of aluminum and eventually plastic beverage containers, refillable bottles that carried a deposit had a 96% return rate.<sup>23</sup>

In 2018, Oregon begun utilizing its existing deposit return infrastructure to launch a statewide refillable bottle system.<sup>24</sup> This system utilized approximately 245,000 refillable beer bottles.<sup>25</sup> The bottles can be refilled up to 40 times and were made primarily from recycled glass.<sup>26</sup> The bottles are designed to be easily separated from the rest of glass collected through the deposit return system.<sup>27</sup> Once separated, the bottles are not processed for recycling but sent to a cleaning facility and then eventually sent back to participating breweries where they are refilled. For consumers, nothing has changed. Since launching in 2018, 410,155 bottles have been diverted from recycling for reuse.<sup>28</sup> Currently 95 beer, cider, and wine brands are available through the reuse system.<sup>29</sup>

Reusable containers avoid the crushing environmental and health harms associated with the production and disposal of single-use plastic containers, and the energy requirements associated

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<sup>22</sup> Bill Sipper, *It's Time for Glass Again – Can We End Beverage Industry's Use of Plastic?* Waste Advantage (Aug. 13, 2019). Available at <https://wasteadvantagemag.com/its-time-for-glass-again-can-we-end-beverage-industrys-use-of-plastic/>

<sup>23</sup> Jenny Gitlitz, *U.S. Container Recycling Rates and Trends*, Container Recycling Institute, pg. 7, (Oct. 2013). Available at <https://www.legis.iowa.gov/docs/publications/SD/698850.pdf>

<sup>24</sup> Jared Pablen, Resource Recycling, *Oregon Group to Launch Refillable Bottle Program*, (Feb. 7, 2017). Available at <https://resource-recycling.com/recycling/2017/02/07/oregon-group-launch-refillable-bottle-program/>.

<sup>25</sup> *Id.*

<sup>26</sup> Cassandra Profita, *Oregon Launches First Statewide Refillable bottle System in U.S.*, NPR, (Sept. 17, 2018). Available at <https://www.npr.org/sections/thesalt/2018/09/17/645548896/oregon-launches-first-statewide-refillable-bottle-system-in-u-s>

<sup>27</sup> *Id.*

<sup>28</sup> Oregon Redemption Center, *Bottle Drop*. Available at <https://www.bottledropcenters.com/buy-refillable-containers/>

<sup>29</sup> *Id.*



with producing and recycling billions of plastic, glass, and aluminum containers. Oregon is currently developing a system to quantify the carbon savings from the new reuse program.<sup>30</sup>

#### IV. Conclusion

Container deposit laws have lasted the test of time because of their proven track record for increasing redemption and recycling. The improvements proposed in H.175 are long overdue. Modernizing Vermont's law will increase the incentive for participating in the container deposit program while capturing a new range of beverage containers that are currently not being collected and recycled at sufficient rates. Additionally, these improvements will help recycled content standards thrive by providing a steady stream of high-quality recycled material that is needed to create new bottles. For the reasons, CLF supports H. 175, and urges its passage. Thank you for the opportunity to submit this testimony.

Sincerely,

*Peter W. Blair Jr*

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<sup>30</sup> *Id.*