

reloop

NORTHEAST

Reimagining the Bottle Bill



The background is a solid green color. It features two large, overlapping circles. Inside each circle, there is a white outline of a leaf. The text 'EXECUTIVE SUMMARY' is centered in the middle of the page in a white, sans-serif font.

EXECUTIVE SUMMARY



Every year in the US, \$5.1 billion in valuable and reclaimable beverage containers — glass, metal, and plastic — are lost to litter, incinerators, and landfills¹.

In the Northeast region alone, 403 beverage containers per person are wasted every year². In addition to wasted materials, we are also losing investment in infrastructure and technology; suffering supply chain shortages and disruptions; and losing opportunities for local economic development centered on jobs that cannot be outsourced. All of these can be addressed through better collection and use of empty aluminum, glass, and plastic packaging. Curbside recycling has been ineffective in addressing beverage containers. Fortunately, there is a well-developed, cost-effective intervention that already works: the bottle bill.

As part of its three-year Reimagining the Bottle Bill initiative, ReLoop North America spearheaded comprehensive research to determine regional and state-specific impacts of a successful deposit return system, and identified a set of 10 high-performance principles to guide the modernization of existing US systems and the establishment of new ones. The data in this report makes a compelling case for immediate legislative action to modernize bottle bills in the Northeast region.

Need and Opportunity for Change

As we mobilize to address climate change, ocean pollution, pressure on supply chains, and the US's overconsumption, circular economy tools — like bottle bills, and the deposit return systems they establish — become increasingly important.

Deposit return systems are cost-effective, enjoy widespread public support and they work. Modern, high-performing deposit return systems can more quickly advance circular economy principles and practices in ways that curbside recycling, even if enhanced, cannot.

The Northeast states targeted in this initiative present a unique opportunity to adopt modern deposit return systems immediately. Connecticut, Maine, Massachusetts, New York, and Vermont have already laid the groundwork for successful deposit return systems, and can make changes now. These states are also particularly impacted by global warming and plastic waste along extensive

coastlines and waterways — both issues that expanded and modernized DRS address. Litter is a major problem far beyond unsightliness. Plastic leakage along our coasts and in our waterways poses a threat to public health, with research showing that microplastics in air, water and food impact human and fetal neurological and physical development.³

Deploying improvements in these states will have an immediate environmental and economic benefit, and will act as a model for other states across the US.

Modernized deposit return systems address the real and urgent need for quality recycled material. Corporate producers have made ambitious commitments to use more recycled materials in their packaging. At the same time, China's 2017 National Sword policy, which effectively put an end to plastic scrap imports, has resulted in increased costs and logistical challenges for municipal recycling programs. Without better supplies of beverage container materials, the industry's overreliance on carbon-intensive virgin material will continue, resulting in an increase in net material consumption.

Principles of a High-Performing DRS

To evaluate the costs, benefits, and impacts of modernized bottle bills, Reloop worked with an array of stakeholders, and Eunomia Research & Consulting, an international sustainability consultancy, to create a model for the five Northeast states, based on the 10 high-performance principles.



- 1 EASY & EQUITABLE
- 2 90% COLLECTION RATE
- 3 \$0.10 MINIMUM DEPOSIT
- 4 INCLUSIVE CIRCULAR SYSTEM



- 5 PRODUCER FUNDED
- 6 FAIR PAY FOR SERVICE PROVIDERS
- 7 FINANCIAL SUPPORT FOR MUNICIPAL RECYCLING PROGRAMS



- 8 CLEAR SYSTEM STANDARDS & FUNCTIONS
- 9 PRODUCER REPORTING ON UNITS SOLD
- 10 GOVERNMENT OVERSIGHT AND ENFORCEMENT

Modeling Impacts: the Potential of Modernized DRS

Under the conditions of the model, every targeted Northeast state would see an increase in the return rate for beverage containers.

Over nine billion additional containers — roughly 1.9 million tons of material — would be recycled across the five states each year, providing a 33% increase in the material available to replace virgin material in new beverage containers. In terms of increased beverage container recycling, plastic is estimated to see the largest increase, with an additional 5.9 billion units being recycled; aluminum and glass follow with an additional 1.9 billion and 1.4 billion containers processed respectively. Under high-performance DRS principles, about 463,000 tons of additional material will be recycled across the Northeast region annually.

This would both help cities and states to meet their climate, recycling and landfill diversion goals, and allow consumer packaging goods brands to meet up to half recycled content corporate commitments and regulatory obligations. The system would cost producers just one to 3.6 cents per container (differs by state), and much of their costs would be offset by material revenue and a portion of unclaimed deposits.

ADDITIONAL UNITS RECYCLED



Modeling Impacts, Continued: the Potential of Modernized DRS

Deposit eligibility would be expanded to include 95% of beverage containers, and the deposit value raised to ten cents from the five cents that is typical across the region.

Across the region, 89% of redemption sites would be retailer-based, while total redemption points would be expanded to one per 1,400 consumers, ensuring access within two miles for residents in urban areas (within 1/2 mile in New York City), and within five miles for rural residents. Not only would the system become more accessible and easy to use for consumers, but litter would decline by up to 34% overall.

Overall, a modernized system would reduce regional greenhouse gas emissions by roughly 550,000 metric tons, save municipalities between \$111 million and \$160 million, and create over 2,700 jobs.

An equitable transition will be critically important. The phase-in of modernized policies will result in approximately \$822 million in unclaimed deposits in the first two years — funds that can be dedicated to aid material recovery facilities (MRFs), municipal recycling programs, and other stakeholders in the transition through investments in equipment and technology, training, and other key needs. Canners likewise will be engaged positively in the transition to an inclusive DRS. State agencies, too, will get the resources they need — more than \$44 million annually — to effectively regulate modernized DRSs.



Time to Act

Deposit return systems work, and they work well. But reforming established systems can be complicated: diverse stakeholders who are involved have a varied set of interests, sometimes aligned, sometimes competing, that must be considered in any reform effort. This research, and this report, are just the first step in Reloop's three-year Reimagining the Bottle Bill campaign.

The time for comprehensive waste policy reform is now. The principles presented here offer an immediate opportunity to build on a familiar, successful policy that has been in use for decades; to establish a modernized, replicable model within the US for other states to follow; and to create a springboard for the widespread use of refillable containers, higher recycled content rates, and longer-term policy goals like Extended Producer Responsibility that will operationalize a circular economy.



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NOTES

- 1 “By the Numbers: A National Beverage Container Program.” Reloop Platform. <https://www.reloopplatform.org/by-the-numbers-a-national-beverage-container-program/>
- 2 Calculated using methodology from: “What We Waste.” Reloop Platform. April 2021. <https://www.reloopplatform.org/what-we-waste>
- 3 Prüst, Minne. “The plastic brain: neurotoxicity of micro and nano-plastics.” Particle and Fibre Toxicology. 08 June 2020. <https://particleandfibretoxicology.biomedcentral.com/articles/10.1186/s12989-020-00358-y>