By the Numbers: A National Beverage Container Program

Modern deposit systems are proven to be highly effective, equitable, and consistently supported by the general public.

This factsheet presents the range of economic, environmental, and social impacts expected from a high-performing national deposit program.

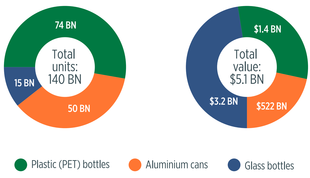
A properly designed deposit system

- Reduces litter and greenhouse gas emissions
- Guarantees that highly recyclable beverage containers are used to satisfy high demand for recycled material
- Drives recycling costs lower and builds stronger recycling markets

The Problem

In Spring 2021, Reloop released a global study on wasted beverage containers. It found that the US had the highest number of buried, burned, or littered containers per capita across 93 countries, totaling $5.1 billion in wasted material every year. That amounts to 140 billion individual containers, or the equivalent of a 12-pack of empty soda bottles thrown into a river every second of every day for 370 years.

Drinks Containers Wasted in the US Annually (units, $)



Fortunately, we have a tried-and-true policy tool to address this problem: deposit return systems (DRS), also known as bottle bills. Countries with bottle bills wasted 79% fewer beverage containers in 2017 than those without deposits.[1] US states with bottle bills had 50% less beverage-container litter per capita and 30% less non-deposit material litter than non-bottle bill states.[2]

Potential for Impact

DRSs require consumers to pay a deposit on any included container they purchase. The deposit is then fully refunded when the container is returned. The result of this simple recycling incentive has been higher container recycling rates, higher-quality material for recycling or reuse, and reduced litter.

Proof Deposit Systems Work

The two US states with $0.10 deposits on beverage containers — Michigan and Oregon — achieve redemption rates above 85%, and the average redemption rate across all 10 US bottle bill states is around 69%.[3] By contrast, states without DRS collect an average of just 28% of their beverage containers for recycling.[4]

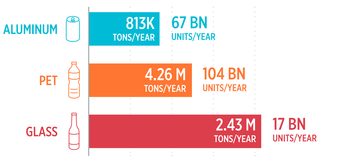
A NATIONAL DEPOSIT SYSTEM: QUANTIFYING IMPACT

MEASURING IMPACT

High-performance deposit return systems routinely achieve beverage container redemption rates exceeding 90 percent. Reloop's analysis of potential impacts of a nationwide DRS is outlined below.

Impact on Industry

A national deposit return system with a 90% redemption rate would produce an additional 7.4 million tons of high-quality recycled material, available for productive reuse.



Source: GlobalData (excludes wine and spirits)

This commodity material will directly and positively impact industry, particularly those with commitments to use recycled material in their products. Today, $5.1 billion in valuable material commodities are burned, buried or littered every year. Effective bottle bills redirect this material from final disposal, ensure a high-quality resource to meet industry commitments, and alleviate pressures on beleaguered municipal recycling programs.

Climate Impact

Using recycled beverage container material to create new products avoids energy associated with sourcing, extracting, processing, and shipping raw virgin materials. For aluminum, using recycled material reduces energy requirements (and related emissions) by 95%, yet under current recycling systems, just 56% of highly recyclable aluminum is actually recycled.

Every year, a national deposit system would reduce greenhouse gas emissions by 11.2 million metric tons of carbon dioxide equivalent. This would be equal to taking nearly 2.4 million cars off the road annually.

Economic Opportunity

The value of recycling goes far beyond commodity-based revenue and avoided greenhouse gas emissions. Recycling infrastructure investment creates jobs locally that cannot be outsourced. According to the US EPA, the recycling sector generated $5.5 billion in tax revenue in 2020, creating some 686,000 jobs.[5]

Deposit systems directly create more jobs than curbside- or dropoff-based recycling, principally due to the fact that increased material recovery requires labor at each of the collection and processing stages.

According to Reloop's analysis, a national deposit system would create more than 155,000 additional jobs, with more than 51,700 direct jobs added.

Support for a National System

Every year, more than 426 beverage containers per person are buried, burned, or littered in the US. This is more than enough to cover every inch of the US Interstate Highway system. This number would shrink to just 98 containers per capita with a national deposit return system, even with an assumed increase in sales of beverages. This better aligns the US with a host of countries that have closed the loop on beverage container recycling.

A beverage container deposit system is the most direct, well-defined, and proven way to drive stronger, more resilient markets for recyclables, deliver a key climate solution, and generate US-based jobs. The potential economic, environmental, and social co-benefits of a national deposit system make it deserving of broad support.

1 Wilcox, Jason and James MacKenzie. 2021. What We Waste. https://www.reloopplatform.org/wp-content/uploads/2021/04/What-We-Waste-Reloop-Report-April-2021-1.pdf
2 Keep America Beautiful. May 2021. 2020 National Litter Study: Summary Report. Keep America Beautiful. https://kab.org/wp-content/uploads/2021/05/Litter-Study-Summary-Report-May-2021_final_05172021.pdf
3 Reloop Platform. 2020. Global Deposit Book 2020. https://www.reloopplatform.org/wp-content/uploads/2020/12/2020-Global-Deposit-Book-WEB-version-IDEC2020.pdf
4 Container Recycling Institute. 2013. Bottled Up: Beverage Container Recycling Stagnates (2000-2010). https://www.container-recycling.org/images/stories/PDF/BottledUp-BCR2000-2010.pdf
5 USEPA. 2020. Recycling Economic Information Report. https://www.epa.gov/smm/recycling-economic-information-rei-report

reloop
reloopplatform.org