

Aluminum Agenda: Recycling

Recycling Refund Programs



The U.S. aluminum industry relies on the scrap generated by recycling as a crucial input for producing new aluminum products. Recycling refund programs are the single most effective policy to bring back more, high quality aluminum scrap into the used beverage can recycling system.

Aluminum is unique in that it can be recycled infinitely without losing its quality. While the recycling rate in most industrial aluminum markets – including transportation – exceeds 90%, the U.S. consumer recycling rate for aluminum beverage cans is below 50%. Aging municipal recycling infrastructure and changes in the marketplace have combined to reduce this rate in recent years, creating challenges for the industry and the environment.

Capturing more aluminum cans means we are able to make more new cans from old cans. This would drastically reduce carbon emissions, by [saving around 95% of the energy](#) needed to make a can from raw materials. In 2021, the Aluminum Association released a new, third-party life cycle assessment (LCA) [report](#) showing that the carbon footprint of aluminum cans made in North America has dropped by nearly half over the past three decades. The LCA also found that recycling a single can saves 1.56 megajoules (MJ) of energy or 98.7 grams of CO2 equivalent. This means that recycling just a 12-pack of aluminum cans will save enough energy to power a typical passenger car for around three miles. The energy saved by recycling the aluminum beverage cans that currently go to U.S. landfills each year could save around \$800 million for the economy and enough energy to power more than 2 million homes for a full year. And as demand increases and the industry invests in new production capacity, we will need to recover more cans to make more metal.

RECYCLING REFUND PROGRAMS



Container deposit systems, or recycling refund programs, play an important role in driving aluminum beverage can recycling. Recycling refund programs charge a refund value (usually 5 or 10 cents) to the consumer at point of purchase, incentivizing the container's return at which point the deposit is refunded. These systems currently exist in 10 U.S. states and Guam (in addition to a number of other countries globally). There is no federal recycling refund program at this time.

The U.S. aluminum industry relies disproportionately on states with such programs to provide the feedstock that makes new aluminum cans. Of the more than 40 billion aluminum cans recycled each year, 40% come from the 10 U.S. deposit states. Further, while recycling rates for aluminum cans are about 40% in non-deposit states, they average more than 80% in states with such programs. What's more, the cans the industry receives back from deposit states tend to be far cleaner and of higher quality, making recycling easier and more economical.

[Can Manufacturers Institute](#)

Not all recycling refund programs operate at the same level of efficiency or effectiveness. The Aluminum Association – in partnership with the Can Manufacturers Institute (CMI) – conducted an extensive analysis of recycling refund laws in the U.S. and globally to better understand the key attributes of the most successful programs. Using that data, the aluminum can industry developed a shared set of “best practice” principles for effective recycling refund programs.

The Aluminum Association supports:

- **Differential pricing:** Send price signals to both brands and consumers that reflect the actual cost to recycle different types of beverage containers. These signals should reflect which materials the recycling system is best equipped to sort and process. This will reward those packaging types that the recycling system can process at scale, incentivize the leading packaging types to further build on their strengths and lead others to improve the sustainability attributes of their packaging.
- **One nonprofit to manage the system:** Create a single beverage container recycling organization that brands pay for and help lead. This will reduce net system costs and create efficiencies. If the government sets mandatory recycling rates, the organization should be focused on meeting these targets.
- **Easy and convenient redemption:** Ensure that the system is developed with consumers in mind to incentivize material recycling. In most cases, a hybrid system featuring both standalone redemption centers and retail store access is the most effective approach. Reverse vending machines and innovations like Oregon's [BottleDrop](#) program or similar successful programs in Europe should be considered to make the system as user-friendly as possible.
- **Including all beverage containers:** Apply the recycling refund requirement on all beverage containers. Excluding certain container types could incentivize consumers to avoid deposit containers and reduce recycling rates overall.
- **Using unredeemed recycling funds on recycling systems:** Ensure that revenues from unredeemed recycling funds are applied back to recycling infrastructure, access, education and similar programs. This revenue should not go into a general fund. Since consumers paid the deposit as part of a recycling initiative, the benefits from unclaimed funds should be directed at improving the recycling system itself.

CALLS FOR SOLUTIONS IN A SYSTEM UNDER STRESS

As the overall U.S. recycling system remains under stress, we expect calls for recycling refund legislation to grow. In recent years, 12 states have proposed bills to either start or reform recycling refund programs. In Congress, meanwhile, the [Break Free From Plastic Pollution Act](#) proposes a national recycling refund program.

The Aluminum Association is eager to partner with policymakers interested in recycling refund systems at the state and federal level to create efficient and effective recycling refund programs. The Association believes that well-designed beverage recycling refund programs could significantly increase aluminum can recycling. The association is working closely with CMI and our member companies on a comprehensive, multi-year effort to increase aluminum can recycling rates by pushing for the creation of well-designed recycling refund systems, among other measures.