# Aluminum Agenda: Recycling Infinitely Recyclable, Uniquely Sustainable 




#### Abstract

Recycling is essential to the modern aluminum business. The U.S. aluminum industry relies on the scrap generated by recycling as a crucial input for producing new aluminum products. Increasing aluminum recycling translates to less energy used and a lower carbon impact.


Aluminum production in the U.S. is increasingly a story of scrap recovery and recycling. Recycled (or secondary) aluminum is around $95 \%$ less energyintensive to produce than new (or primary) aluminum. And aluminum can be recycled infinitely. That's why $75 \%$ of all aluminum ever produced is still in use today. The U.S. aluminum industry recycles more aluminum today than ever before. We collect more than twice the amount of aluminum for recycling today than we did in the 1980s. Today, the U.S. is the second largest producer of recycled (or secondary) aluminum in the world.


However, while the recycling rate in most industrial aluminum markets - including transportation - exceeds $90 \%$, the U.S. consumer recycling rate for aluminum beverage cans is unacceptable- at below $50 \%$. Aging municipal recycling infrastructure and changes in the marketplace have reduced this rate in recent years.

Consumers are continually making more sustainable packaging choices. Yet, Americans throw away some $\$ 800$ million worth of aluminum each year, creating a massive loss to the economy and the environment. Improving the nation's consumer recycling system would put some of this material back to productive use and bolster domestic aluminum supply chains.

## CONSUMER RECYCLING

Aluminum cans have a higher recycling rate and more recycled content than competing package types. Since 1972, more than 2 trillion cans have been recycled. They are lightweight, stackable and strong, allowing brands to package and transport more beverages using less material. The aluminum can remains by far the most valuable beverage package in the recycling bin, with a value of $\$ 991$ /ton compared to $\$ 205 /$ ton for PET and a negative value of $\$ 23 /$ ton for glass, based on a two-year rolling average through February 2021. It helps make municipal recycling programs financially viable and effectively subsidizes the recycling of less valuable materials in the bin.

Aluminum cans are recycled at higher rates than any other beverage container and at more than twice the rate of PET bottles.

Most of all, aluminum cans are most often recycled over and over again in a circular recycling process. When recycled, glass and plastic are often turned into a different product that is not recyclable or is unlikely to be recycled again. For example, a PET bottle might end up as carpet fiber or a t-shirt. Aluminum cans, meanwhile, can be recycled infinitely to make new cans.

## BEVERAGE CAN RECOVERY

Aluminum cans are the most sustainable beverage packaging type in virtually every way. Yet aging infrastructure and changes in the marketplace have pushed aluminum can recycling rates in recent years down below 50\%. Responsible, comprehensive and sensible consumer recycling policy is needed to reverse this trend.

## The Aluminum Association supports:

- Passage of HR 6159 and HR 4040: At a minimum, the association calls on Congress to take stock of the nation's recycling capabilities through a Government Accountability Office study.
- Well-designed container deposit laws: Maintain container deposit programs in states where they have proven effective in raising recycling rates and encourage states (or the federal government) to adopt welldesigned deposit programs elsewhere. The aluminum industry relies disproportionately on states with container deposit laws - where recycling rates are typically at least twice the rate of non-deposit states as a source of high-quality and high-volume aluminum can scrap.
- Pay-as-you-throw programs: Properly reflect the cost of wasting natural resources and discarding recyclable materials like aluminum by implementing pay-as-you-throw programs.
- Landfill Bans: Consider well-designed landfill ban policies as part of a comprehensive recycling strategy. Aluminum is not trash. And yet, billions of aluminum cans end up in landfills each year. This is not only bad for the environment but also represents the loss of material needed for resilient manufacturing supply chains.
- Landfill Tipping Fee Adjustments: Implement policies that increase landfill tipping fees to better reflect the market value of materials being sent to landfills. Recycling policies should properly recognize the true cost of burying valuable natural resources to the extent possible.


## INDUSTRIAL RECYCLING

The aluminum recycling rate in most industrial markets - like transportation or building \& construction - exceeds $90 \%$. Industry recycling efforts in the U.S. save more than 90 million barrels of oil equivalent each year. To meet increased demand for aluminum in the $21^{\text {st }}$ century, shore up domestic supply chains and address energy and climate challenges, the industry must increase scrap recovery even further and continue the necessary innovation to use secondary aluminum in more applications.

## The Aluminum Association supports:

- Increased research and development (R\&D) investment for recycling infrastructure, especially those technologies that improve the quality of aluminum scrap by sorting recyclable materials and segregating alloys.
- Innovation to expand use of recycled aluminum: Leverage public-private partnership like the Department of Energy's Critical Materials Institute and the REMADE Institute, to maximize the use of recycled aluminum. Provide grants or research partnerships to better utilize scrap material and develop innovative alloys with higher recycled content.

