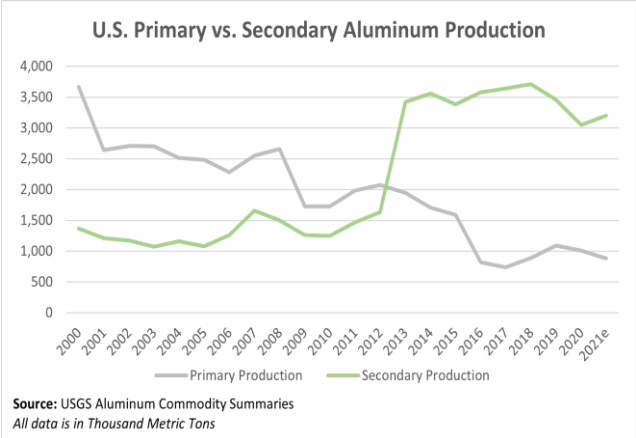
THE ALUMINUM ASSOCIATION

Aluminum Agenda:
Recycling & Resilience
Recycling essential to critical mineral supply chain

The modern U.S. aluminum industry is part of a closely integrated global supply chain that has been designated as critical to national security by the Departments of Commerce and Defense. Aluminum is designated as one of only eight mineral commodities that are essential to all critical sectors of the U.S. economy by the U.S. Geological Service.

ALUMINUM FOUNDED AND DEPENDENT ON A CIRCULAR ECONOMY

Aluminum can be infinitely recycled without losing its properties. About 80% of domestic aluminum produced today is recycled – or secondary aluminum. Secondary aluminum uses only 5% of the energy involved in the smelting of primary aluminum and vastly reduces emissions. Our industry depends on getting products back at the end of the life cycle to make new products. U.S. policymakers should look to the circular economy to increase resilience in this critical supply chain.



The Aluminum Association Supports:

- **Consumer Recycling Investment & Reform:** Reform recycling to drive higher recycling rates and ensure domestic producers a stable supply of metal inputs. Consumer recycling has the added benefit of being mostly alloy-segregated, allowing a true closed-loop system for making new aluminum cans. Programs that make investments in materials recovery facilities, recycling education and data collection will reduce reliance on input materials from abroad. Programs that incorporate market value into consumer decision-making such as container deposit (or recycling refund) laws, pay-as-you-throw programs, landfill bans and landfill tipping fee adjustments are all potential solutions to increase aluminum recycling. As introduced, *the Recycling Infrastructure and Accessibility Act* (S. 1189) will increase recycling rates by investing in historically underserved communities. *The Recycling and Composting Accountability Act* (S. 1194) will identify gaps in our nation's recycling system by improving and standardizing data collection and conducting circularity studies.
- **Expanding DPA Title III Programs to Promote Aluminum Supply:** Appropriate additional funds for Defense Production Act (DPA) Title III programs to invest in aluminum recycling technologies that will promote a circular economy while reducing our nation's reliance on non-market economies for aluminum. The upcoming Department of Defense *Report on Aluminum Refining, Processing, and Manufacturing* will identify further areas of cooperation.
- **Investment in Aluminum Alloy Sortation & Segregation Technologies:** To achieve a true closed loop, end products such as vehicle parts must be segregated by alloy during the recycling process. This helps ensure that they will be made into the same product again.. Investing in alloy sortation, alloy segregation and related technologies will reduce aluminum's demand for other critical materials, its energy use and

greenhouse gas emissions. Public-private partnerships with the Department of Energy's Critical Materials Institute and the REMADE Institute should continue to build upon past success in advancing recycling priorities.

- **Investments in Purifying Secondary Aluminum**: Federal commercialization grants and capital investment tax credits can help drive technological improvements. Companies are investing in technologies that convert post-consumer scrap, regardless of alloy combination, into aluminum that is much purer than commodity-grade metal produced by smelters today. This purity can be used to upscale more contaminated forms of scrap — enabling their use in rolled aluminum, extrusions and aerospace – or in a variety of high-purity applications.
- **Strengthen Aluminum's Domestic Supply Chain:** Introduce legislation establishing a competitive grant program at the Department of Commerce to build and construct aluminum facilities utilizing advanced technology, energy efficiency upgrades, modern environmental control systems, or facilities focused on technology production. And invest in researching the next generation of aluminum alloys, efficiency techniques, methods for recycling of post-consumer aluminum and new ways to decarbonize the fabrication of aluminum products.
- **Industrial Recycling Research & Investment:** While the aluminum recycling rate in most industrial markets exceeds 90%, more must be done to recover our critical material. Grants for industrial recycling, equipment to process low-carbon feedstocks and the development of new alloys that can tolerate higher levels of recycled content will assist in making aluminum more sustainable and critical supply chains more resilient.

ALUMINUM PRODUCTS DEPEND ON OTHER CRITICAL MINERALS

Aluminum's use in the non-defense aerospace, energy, electronics, transportation and defense sectors make our products a pillar of national security. These products often contain alloying elements that, when combined with aluminum, gain additional properties that suit a product to its end use.

Many of these alloying elements are also designated as critical and are substitutable in our products. For example, aluminum alloy series 3,000 is alloyed with magnesium and manganese (recently highlighted in President Biden's Executive Order on battery materials) and is used in a variety of applications in electronics – such as casings and heatsinks -- and beverage cans. Series 5,000 utilizes magnesium and can be used produce a variety of automobile parts, electronics components and in the construction sector. Aerospace depends on aluminum series 7,000, which uses the alloying elements zinc, magnesium, copper and chromium. Many end products use a variety of alloys in their design, including the U.S. military's Bradley Fighting Vehicle, which utilizes alloys from the 5,000 and 7,000 series.

The Aluminum Association Supports:

- **A Critical Mineral List That Accounts for Alloying Elements:** Without a reliable supply of key alloying elements, the industry would be unable to produce many of the aluminum products for which the metal is designated as critical. The association encourages future iterations of the critical mineral list that accounts for the unique relationship between aluminum and other critical minerals.