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Facts about beverage container wasting and replacement

by Jenny Gitlitz, CRI Research Director, and author of the report, "Trashed Cans: The Global Environmental Impacts of Aluminum Can Wasting in America."

Since the first Earth Day in 1970, 2.3 trillion beverage containers have been wasted (landfilled, littered or incinerated) in the United States.[1] This includes:

- ✓ **961 billion** wasted aluminum beverage cans weighing about 17 million tons
- ✓ **324 billion** wasted steel beverage cans weighing about 28 million tons
- ✓ **276 billion** wasted PET plastic beverage bottles weighing about 11 million tons
- ✓ **190 billion** wasted HDPE plastic beverage bottles weighing about 12 million tons
- ✓ **600 billion** wasted one-way glass beverage bottles weighing about 166 million tons

Replacement production: While all this beverage container waste has taken up landfill space, and has contributed to litter on our nation's roads, parks, beaches and other public places…the more significant environmental impacts of wasting these containers are in replacement production. That is, using **virgin materials and vast amounts of energy** to make new containers to replace those that were never recycled. Pound for pound, replacement production also creates more **pollution**—in the air, water and on land—than recycling does.

Energy savings and pollution avoidance: Had these 2 trillion containers been recycled, the equivalent of **800 million barrels of crude oil** could have been saved, and the emission of an estimated **600 million tons of greenhouse gasses** could have been avoided.

Many other environmental impacts could have been avoided as well, including the strip mining of raw bauxite ore and the flooding of vast forests to provide hydropower for the primary aluminum industry; oil drilling and its associated spills; many of the impacts of coal mining and burning; the generation of sulfur and nitrogen oxides (contributors to acid rain and smog) from energy production and other industrial processes; the emissions of toxic fluorides which harm livestock and vegetation, etc.

The damages continue, because we must replace the 115 billion containers that are still wasted each year. For example, Alcoa is moving ahead with plans to build roads, dams and a 322,000-ton aluminum smelter in Iceland. While destroying a scenic area akin to the Grand Canyon and threatening wildlife in Europe's second largest wilderness, the smelter's capacity is **less than half** of what **U.S. consumers throw away each year**: 750,000 tons of cans. Other destructive smelter projects are planned in Brazil, Chile, Mozambique, etc.

Deposits work. The nation's 10 deposit states recycle *490 containers per capita per year*, at an average cost of 1.53 cents per container, while the nation's 40 non-deposits states (which rely solely on curbsides and drop-offs) recycle *191 containers per capita per year*, at an average cost of 1.25¢/container. In other words, **deposit states produce bang for the buck**: at an additional cost of only 1.5 cents per six-pack, their recovery rates are more than two and a half times higher than states without bottle bills.[2]

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[1] CRI estimates, using data from the Aluminum Association, Glass Packaging Institute, American Plastics Council, NAPCOR, U.S. Environmental Protection Agency, U.S. Dept. of Commerce, and Beverage Marketing Corp.

[2] "Understanding Beverage Container Recycling: A Value Chain Assessment." Global Green USA, January 16, 2002.