

The Scrap Recycling Industry: Electronics

The U.S. electronics recycling industry has shown tremendous growth over the past 10 years. This maturing segment of the scrap recycling industry provides a boost of approximately \$20.6 billion, including exports of \$1.45 billion, to the U.S. economy (up from less than \$1 billion in 2002) and employs more than 45,000 full time employees (up from 6,000 in 2002).

In 2011, the U.S. electronics recycling industry processed more than 4.4 million tons of used and end-of-life electronics equipment. ISRI estimates that the volume of electronics recycled in the U.S. now exceeds 5 million tons per year. More than 70 percent of the collected equipment is manufactured into specification grade commodities — including scrap steel, aluminum, copper, lead, circuit boards, plastics, and glass. These valuable commodities are then sold to basic materials manufacturers in the United States and globally as raw material feedstock for new products, such as steel, copper, aluminum, plastic, and glass.

Electronics recyclers repair, refurbish, and resell functioning electronics equipment as used products into domestic and international markets. Companies also provide a number of logistical services, like collection, storage, and transportation as well as scrubbing hard drives of sensitive personal and commercial data.

The industry is driven by equipment collected from businesses and commercial interests, comprising up to 75 percent of the market on a volume basis. The electronics recycling industry is poised to meet the anticipated increased demand for more used products and specification grade commodities.

The electronics recycling industry has seen a dramatic increase in the use of third-party certifications. The marketplace is pushing electronics recyclers to become certified to programs like ISRI's R2/RIOS® program (www.RIOSCertification.org) to improve operational controls, meet customer demands, and secure a competitive advantage.

The reuse of used electronics equipment and consumption of commodity grade materials recovered from electronics to manufacture new products boosts the U.S. economy, creates jobs, sustains the earth's natural resources, conserves impressive amounts of energy in the manufacturing process, and reduces greenhouse gas emissions from those facilities.



More than 5 million tons of electronic equipment in the U.S. is recycled every year.



THE ELECTRONIC SCRAP INDUSTRY

Recyclables are not waste. Recycling is not disposal. Obsolete electronics are products that contain marketable scrap commodities traded in the global market.

Responsible manufacturing begins with Design for Recycling®, and results in better solutions to the environmental challenges faced at each stage of a product's life.

One metric ton of electronic scrap from personal computers contains more gold than recovered from 17 tons of gold ore.

Scrap commodity markets are best governed by traditional laws of supply and demand.

Financing mechanisms should only be used to stimulate the recycling of scrap electronics until the markets for those materials are economically viable.

A portion of any fees generated should be spent to develop end-use consumer markets for electronic commodities, such as plastics and glass.

Obsolete recyclable electronics that can be safely and economically recycled should be banned from disposal.

Sources: USITC, ISRI's Electronics Recycling Policy & USGS.

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