EPA Sustainable Material Management Electronics Challenge Data

xerox™

EQUIPMENT AND SUPPLIES COLLECTED FOR REUSE AND RECYCLING IN THE U.S.

	2017 (U.S. tons)	2018 (U.S. tons)	2019 (U.S. tons)
Equipment collected for reuse and recycling[2]	11,495.08	11,903.62	12,473.83
Supplies collected for reuse and recycling[4]	1,909.28	2,502.25	2,495.05
Total[1]	13,404.35	14,405.86	14,968.88

REUSE AND RECYCLING THROUGH THIRD-PARTY CERTIFIED RECYCLERS IN THE U.S.

	2017	2018	2019
Total sent to third-party certified recyclers[5]	13,404.35 tons	14,405.86 tons	14,968.88 tons
Percentage of total electronics collected sent to third-party certified recyclers	100%	100%	100%

STATE REPORTING DATA

	2017 (U.S. tons)	2018 (U.S. tons)	2019 (U.S. tons)
Electronics collected in sates with take-back laws explicitly to meet these laws	182.46	92.67	196.75
Electronics that exceed state take-back laws, collected in states with take-back laws	0	0	0
Electronics collected in states without take-back laws	11,312.61	11,810.94	12,277.08
Electronics collected but not attributed to a specific state (e.g., consumables mail-back program)	1,909.28	2,502.25	2,495.05

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STATE REPORTING DATA APPROACH

In states with OEM take-back laws, sales and take-back data are managed and tracked by the Xerox Environment, Health, Safety and Sustainability (EHS&S) Compliance Manager. Through a Master Service Agreement with Sims Recycling Solutions (SRS), Xerox ensures that the appropriate amount of electronics waste is managed responsibly. Currently, Xerox has take-back programs in place in thirteen states and the District of Columbia. In the remaining states where Xerox® products do not meet the definition of covered devices, the actual weight of electronics received by our Reverse Logistics operations is tracked and managed internally. Xerox does not transfer pounds of electronics waste to other original equipment manufacturers.

Xerox increased collection, recycling and/or reuse in two states without take-back laws.

Florida (U.S. tons)		**Tennessee (U.S. tons)**	
Previous Year	Reporting Year	Previous Year	Reporting Year
1,030	1,052	295	310

DUE DILIGENCE

Xerox has verified that we conduct due diligence to ensure that the recycler of first entry into the system, as well as any vendors receiving materials after the initial recycler (i.e., downstream vendors), either:

- are certified to an established third-party certification standard, or
- are examined by the company's auditors at least semi-annually to ensure safe management practices.

Xerox Reverse Logistics Center (RLC), located in Monroe, OH has been and continues to be certified to SERI's R2:2013 responsible recycling standard. The RLC is subjected to an annual surveillance assessment by Perry Johnson and a recertification assessment every three years. In addition, the RLC verifies that the first-tier electronics recycler is also certified to the R2 standard through a questionnaire and a request of the certificate from the third-party assessor annually. Xerox Corporate EHS&S maintains a record of the certificates that SRS and other initial service providers have on file, as required in our EPEAT registration.

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EDUCATION OUTREACH

We promote responsible recycling through internal communication and by holding an annual Recycles Day in Webster, NY. At the event, hundreds of current and former employees drop off personal electronics waste and other household goods that are then donated to local non-profit organizations. Xerox partners with a local R2/RIOS certified vendor to recycle and responsibly manage all e-waste that is collected on this day.

Xerox customers return more than 2.5 million cartridges and toner containers annually through the Xerox Green World Alliance program. The program was established over two decades ago to enable our customers to return used consumables to Xerox for remanufacturing or reuse. Some consumables are not part of the remanufacturing program and will be repurposed into other products by our third-party recycler. Customers can send used consumables back by using our free Eco Box, their own cardboard box, in bulk through our pallet returns process or in the original packaging, depending on the most efficient option for them.

By partnering with the National Cristina Foundation, we provide used Xerox® equipment to help non-profit organizations, public agencies and other entities in need. Customers can donate used equipment that is still in working condition, in addition to computers, monitors and other electronic equipment. This program helps divert electronics from being disposed of in local landfills while giving the equipment a second useful life and helping underprivileged entities and individuals.

A number of other options are available for customers to recycle and responsibly dispose of their Xerox® equipment based on their contract status, state regulatory requirements and product model number. In accordance with EPEAT criteria and best practice, Xerox publicly posts End of Life Characterization reports. These detailed reports give breakdown instructions for end- of-life management facilities to easily recycle components and are found at: https://www.xerox.com/en-us/about/ehs/reduce-waste

COMPANY POLICIES FAVORING RECYCLING AND RESUSE

- One of our corporate strategic commitment areas is "Preventing and Managing Waste". The goal at Xerox is to produce waste-free products and services for customers and operate waste-free facilities across the real estate portfolio and our customers' workplaces.
- A 2020 corporate sustainability goal of 100% of equipment and consumables sent to reuse, remanufacture, recycle and energy-from-waste options listed in descending order of priority.
- Our Corporate EHS&S Policy is to strive for continual improvement in conserving natural resources; eliminating the use of toxic and hazardous materials; preventing pollution; recovering, reusing and recycling. This policy, including a signed version, is available at: https://www.xerox.com/en-us/about/environment/environmental-policy

EPA-provided baseline/annual tier data is publicly available at: https://www.xerox.com/en-us/about/ehs/reduce-waste

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UPSTREAM COMMUNICATION AND INNOVATION

How do you influence supplier behavior (e.g., in the areas of materials selection, design for product longevity, reuse and recycling, energy conservation, end-of-life management and corporate performance)?

We ensure that every supplier agrees to the full set of Xerox Global Supplier Quality Requirements and Codes of Conduct, including supplier environmental requirements. All Xerox suppliers conform to EHS 1001 - Xerox Environmental, Health and Safety Supplier Requirements: Chemical Bans/Restrictions and Part Marking that ensures raw materials do not contain any hazardous chemicals or substances. Our aim is to design products, packaging and consumables that make efficient use of resources and decrease the reliance on non-renewable raw materials.

All Xerox® products contain between 0 and 5% post-consumer recycled plastic content. Furthermore, all eligible products are designed to meet ENERGY STAR 3.0 Imaging Equipment specifications and are continuously designed to increase energy efficiency during use.

Product life span and durability is optimized through the insurance that all spare parts are available from suppliers for at least 5 years. This spare parts policy ensures that devices do not need to be replaced for at least 5 years and increases the useful life of the product. In addition, Xerox® devices have high upgradability capabilities in terms of memory, new software and other features that extend the useful life of the product.

Xerox designs all products with end-of-life in mind. Products can be disassembled with commonly available tools; all plastics are marked for recyclability and have disassembly documents publicly available. We are an industry leader in end-of-life management with an optimized global take-back system, which monitors, tracks and calculates second life value in order to ensure every asset is processed using the most environmentally responsible and cost-effective methods. We hold our suppliers to high standards in order to ensure that Xerox delivers sustainable products to our customers.

How have you helped customers reduce their electronics packaging waste (e.g., through creative packaging design, innovative material choices, and better logistics)?

Xerox sets environmental, health and safety requirements specifically for our packaging in order for us to remain in compliance and implement best practices. The most recent packaging initiative to help our customers reduce their electronics packaging waste is a material reduction of toner containers through life cycle innovation. This initiative implements three design and material changes and end-of-life process improvements that lower environmental impacts of life cycle phases associated with the raw material, manufacturing and end-of-life of toner containers. Design changes reduced the amount of raw materials needed to manufacture toner containers. A material change reduced the amount of energy required to manufacture toner containers. Innovative end-of-life processes were implemented to optimize the ability of reuse, recycling and remanufacturing of toner containers. Additionally, Xerox® Product design for the Environment criteria follow EPEAT requirements such that we strive to have 90% of product packaging compostable or recyclable.

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NOTES

1. **Total Collected for Reuse and Recycling:** This is the total amount of used electronics collected for reuse and recycling, including the amount sent to certified and non-certified recyclers. It can include company assets, business to business, warranty returns, and electronics collected and/or purchased to meet state take-back laws. See below for definitions of "reuse", "all streams" and "units".

2. **Equipment:** Defined as electronics equipment such as central processing units (CPUs), desktops, laptops, televisions, printers, monitors, copiers, fax machines, scanners, imaging equipment, radios, tablets, e-readers, slates, netbooks, and heavy equipment such as servers. It further includes any other or new (future) types of equipment that are designed primarily to store or convey information electronically and have a 4-inch screen or larger measured diagonally.

3. **Cell Phones and Other Mobile Devices**: Defined as electronic equipment such as cell phones, personal digital assistants (PDAs), organizers, tablets, e-readers, slates, smart phones, compact disc players, gaming systems, calculators, and MP3 devices. It also includes any other or new (future) types of equipment that are designed primarily to store or convey information electronically and that are lightweight, mobile in design, and have a 4-inch screen or less measured diagonally.

4. **Accessories:** Defined as headphones, speakers, CDs, toner cartridges, USB sticks, keyboards, game system accessories, cables, chargers, and other small, miscellaneous items as defined by the Participant. It further includes any other or new (future) types of accessories to either the equipment or cell phone and other mobile devices equipment. The participant is welcome to provide a separate breakout of any of the items listed as accessories.

5. **Total sent to third-party certified recyclers:** For the purposes of the SMM Electronics Challenge, the term "recycler" denotes refurbisher or recycler certified to a recognized third-party certified recycling program. Similarly, the term "recycling" denotes recycling, refurbishment and reuse. Currently, Responsible Recycling Practices (R2) and e-Stewards are the only recognized certification standards for recyclers. However, EPA may recognize additional standards at a later date. Also see definition of 'all streams' below.

DEFINITIONS

- **Reuse:** Denotes an electronics object, or component of an electronics object that is used again by a different owner either for its original purpose or for a similar purpose, without significantly altering the physical form of the object or material. The electronics object may be cleaned, repaired, or refurbished between uses.

- **All Streams:** Denotes used electronics collected for recycling or reuse from the various return streams used by the participant. Streams could include consumer take-back programs, asset recovery programs, retired lease returns, collection events, or trade-in programs.

- **Baseline:** The year a participant joins the challenge. Annual results are compared to the baseline as well as preceding years' results.

- **Units:** Individual items collected for reuse and recycling, including equipment (e.g., televisions, computers, printers), cell phones and mobile devices (e.g., smartphones, tablets, MP3players), and accessories (e.g., USB drives, headphones, keyboards).