ANNUAL DATA - GOLD

ANNUAL | 2018

Samsung Electronics America, Inc.

Please submit all numbers in tons or units, as indicated. Note that reporting in tons is required (*), while reporting in units is optional.

An asterisk (*) denotes a required field. Participants cannot submit the data form until all fields marked with an asterisk are complete.

Total Collected for Reuse & Recycling from all Streams		
Total Collected for Reuse & Recycling: 1	60,041.33 tons	
Total Units Collected for Reuse and Recycling (optional):	2,563,864	
Equipment: <u>2 (</u> optional) *	60,034.84 tons	
Units of Equipment Collected for Reuse and Recycling (optional):	2,525,864	
Cell Phones and other Mobile Devices: 3 (optional) *	6.49 <i>tons</i>	
Units of Cell Phones/Mobile Devices Collected for Reuse and Recycling (optional):	38,000	
Accessories: 4 (optional) *	0.00 tons	
Units of Accessories Collected for Reuse and Recycling (optional):		
Total:	60,041.33 tons	
Total Units:	2,563,864	
Reuse and Recycling Data		
Total sent to third-party certified recyclers from All Streams: 5 *	60,041.33 tons	
Total Units sent to third-party certified recyclers (optional):	2,563,864	
Percentage sent to third-party certified recyclers:	100.00 %	
Has collection increased compared to the previous year	?*	
⊖ Yes		
⊙ No		

Total Collected for reuse and recycling from all streams (Note: The total from the below categories should equal the total recycled)

Weight of electronics collected in states with take-back laws explicitly to meet these laws. *

57,164.00 tons

Weight of electronics that exceeds state take-back laws, collected in states with take-back laws. *

Total Units collected in states with take-back laws (optional): 2.406.386

Weight of electronics collected in states without take-back laws. *

2,781.00 tons

Total Units collected in states without take-back laws (optional):

117,049

Weight of electronics collected but not attributable to a specific state (e.g., collected by mail-back program, regional agreement, or other method that does not allow a company to track).*

96.00 tons

Total Units collected but not attributable to a specific state (optional):

40,397

Please use this space to convey any details to EPA about your approach for arriving at your state data (i.e., with and without take-back laws) and any company-specific contributing factors and other useful information (e.g., did your company sell pounds to other OEMS? if so, how many?)*

Samsung collects and responsibly recycles electronics based on state regulatory requirements. Samsung also collects voluntarily in nonregulatory states across the US. Samsung further provides mail-back, mobile return/reuse and TV Trade-In opportunities for consumers in an effort to make product recycling as easy as product purchases. Samsung's recycling partners invoice monthly, breaking down the pounds collected by state. We verify the collection and recycling of these pounds through annual audits. No pounds reported were sold to other OEMs. Regarding unit counts, Samsung has surveyed its largest recycling partners to determine the average weight of devices collected through out the US to be 47.51 lbs in 2018. This number represents a large percentage of CRT TV and monitor devices still being collected and recycled in the consumer waste stream. TV Trade-In average weight was 75 lbs per device. The Mobile device calculations are based on 0.341717 per pound which is the average weight of a Samsung Galaxy S8 mobile device. These calculations provide a decent snapshot in time for what the 2018 consumer waste stream looks like.

Did your company increase collection, recycling and/or reuse in two states without take-back laws? *

Yes

C No

Provide two states without a take-back law and actual data (i.e., not derived from an estimate) in which you achieved a total increase in recycling.

State: *

Ohio

Previous Year's Data: * 1,095.00 tons

Previous Year Total Units collected (optional):

40,176

Current Year's Data:*

1,095.00 tons

Current Year Total Units collected (optional):

46,096

Please explain how you achieved this increase in the text box below. *

Using data acquired from our recycling partners, Samsung determined the average weight of devices collected throughout the US to be 54.51 lbs in 2017 vs 47.51 lbs in 2018. This change in avg weight shows more units were collected in 2018 vs 2017.

State: *

New Mexico

Previous Year's Data: *

16.50 tons

Previous Year Total Units collected (optional):

605

Current Year's Data:*

16.50 *tons*

Current Year Total Units collected (optional): 695

Please explain how you achieved this increase in the text box below.

Using data acquired from our recycling partners, Samsung determined the average weight of devices collected throughout the US to be 54.51 lbs in 2017 vs 47.51 lbs in 2018. This change in avg weight shows more units were collected in 2018 vs 2017.

Reporting Requirements

Due Diligence

Have you verified that your company conducts 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?

If a certifying body conducts an annual audit, only one additional in-person or paper audit is required per year. *

Yes

O No

Provide the methodology used for verification: *

Samsung's recycling partners are certified to the e-Stewards standard which requires annual auditing on all primary and downstream processing facilities. e-Stewards certification ensures that consumer product data is safely destroyed and that no hazardous electronic waste is shipped to the developing world. Additionally, Samsung conducts its own audits either in person or through a third-party auditor. These audits are performed for each of our primary recycling partners and include extensive due diligence on all downstream material flows. Primary recyclers are required to show full mass balance reporting to account for all material entering and leaving each facility.

Certified Recyclers and Programs*

Is this information included in the final, publicly-posted report? *

Yes

O No

List names of certified recycler(s) used and certification programs:

	CERTIFIED RECYCLER NAME *	CERTIFIED RECYCLER LOCATION - CITY, STATE, COUNTRY (IF APPLICABLE)*	CERTIFIED PROGRAM *
1	Electronic Recyclers International, Inc.	Plainfield IN, Holliston MA, Fresno CA, Badin NC, Aurora CO, Flower Mound TX	e-Stewards, R2
2	Universal Recycling Technologies, LLC	Janesville WI, Clackamas OR, Dover NH, Fort Worth TX	e-Stewards
3	Vintage Tech LLC	Langhorne PA, Plainfield IL	e-Stewards, R2
4	Manufacturers Recycling Management Company	Minneapolis MN	e-Stewards
5	Wisetek Solutions	Hyattsville MD	e-Stewards, R2

Education & Outreach

List and describe public education and outreach activities on safe management of used electronics and available collection opportunities.

Samsung continued its partnership with Boys and Girls Club of America to teach kids about environmental and sustainability topics including e-waste and recycling. The Climate Superstars program encouraged children ages 11-13 to compete to unlock badges and earn points while learning to be positive environmental stewards. The core themes discussed included improving energy-efficiency, conserving water and reducing waste, including identifying energy efficient ENERGY STAR products, planting trees, recycling electronics and more. Additionally, Samsung works directly with Salt Lake City and the Salt Lake Valley Health Department to drive responsible collection and recycling of unwanted electronics. Samsung further sponsors an annual collection event in partnership with ERI and The Salvation Army at the Consumer Electronics Show in Las Vegas, NV. Samsung also works with Call2Recycle for consumer education on the proper recycling of rechargeable batteries. We are a proud partner of the Northeast Recycling Council (NERC) which aims to promote responsible recycling throughout the northeast US.

Website where public education and outreach activities are listed (optional):

http://www.samsung.com/recycling Ensure website address begins with http:// or https://

Company Policies Favoring Recycling and Reuse

List and describe company policies that favor recycling and reuse of electronics equipment and/or components, as opposed to energy recovery, incineration, or land disposal. *

The Samsung recycling program seeks to drive circular economy principles in which we create a virtuous cycle of longevity, repair, reuse and recycling. To do this, Samsung recycling vendors must adhere to the e-Stewards Standard for Responsible Recycling and Reuse of Electronic Equipment (e-Stewards Standard). Vendors following the standard ensure that all electronic devices managed on behalf of Samsung follow the hierarchy of disposal which favor reuse, refurbishment and recycling above energy recovery, incineration or land disposal. The Samsung recycling program has been designed so that consumer data is protected and so all data bearing devices are responsibly destroyed or wiped in accordance with NIST SP 800-88 and criterion 4.4.6.3 of the e-Stewards Standard. Further, Samsung ensures all recycling vendors adhere to the United Nations' Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal Protocol (Basel Protocol). This is to ensure that Samsung's e-waste downstream processing will not export hazardous electronic equipment in open fires; not incinerate materials which contain mercury, halogenated materials, and/or beryllium; and not export hazardous electronic waste to developing nations as previously defined by the Basel Protocol. Lastly, Samsung has made great efforts to expand its authorized service center and repair network through partnerships with uBreakiFix and Best Buy throughout the US. This enables consumers convenient access to safe and secure repair options.

Website

List website where EPA provided baseline/annual tier data is publicly posted: * https://www.samsung.com/us/aboutsamsung/sustainability/environment/responsible-recycling/performance/

Ensure website address begins with http://or https://

Upstream Communication & Innovation

Answer two of the three questions.

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)?

All suppliers that provide products or components to be sold by Samsung Electronics are subject to the Eco-Partner certification. We grant certification by assessing their compliance with our Standards for Control of Substances Used in Products and the suppliers' environmental quality management system. Suppliers submit a product environmental report containing proof of their hazardous substances information, along with data from the raw materials company. Samsung Electronics then makes a thorough assessment by visiting the suppliers' manufacturing sites to verify the submitted documents. To maintain the Eco-Partner certification, suppliers must be audited every two years, and those that fail to pass the audit are excluded from the supply chain. In these ways, we are striving to incorporate our suppliers in our Green Management initiatives. Rather than a one-time assessment, we provide continuous management and evaluation to ensure sustainable supply chain management. In addition to this, Samsung has developed an eco-conscious product management process which seeks to reduce our environmental impacts throughout a products lifecycle. This includes the development, manufacturing, distribution, use, repair & reuse and take-back & recycling.

Website where company activities or programs are listed (optional):

https://www.samsung.com/us/aboutsamsung/sustainability/environment/our-commitment/eco-management/

Ensure website address begins with http://or https://

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

Samsung provides recycling information on all product packaging. We have also made the following announcements that will assists consumers reduce waste: 1) By 2019, we will begin shifting away from plastic packaging towards paper and other environmentally conscious packaging for mobile phones, tablets and wearables. 2) By 2020, we will ensure 100 percent of the paper we use in our packaging is responsibly sourced and conforms to the international standards for responsible paper sourcing and the Forest Stewardship Council. 3) By 2020 and beyond we will continue to shift other products towards paper and environmentally conscious packaging.

Website where company activities or programs are listed (optional):

Ensure website address begins with http://or https://

How do you encourage customers (including large purchasers) to buy sustainable or "green" electronics products?

Samsung encourages customers to buy sustainable or "green" electronics through putting to market those products that certify as ENERGY STAR and/or EPEAT listed. EPEAT is a holistic voluntary certification for sustainable electronics and ENERGY STAR sets criteria for efficiency. We provide educational collateral on our website and to our business partners which highlight our products eco-friendly features. These highlights focus on resource efficiency, hazardous substances, eco certifications, recycled content and energy savings. We also specify which hazardous materials have been removed from each product and provide an explanation of the potential energy savings as a result of anticipated product use. Samsung is always striving to obtain the top eco certifications for its products, such as EPEAT Gold and ENERGY STAR Most Efficient. In addition to this, Samsung is continuing to offer trade-in and trade-up promotions in which old TVs can be returned and responsibly recycled through our online and retail channels when purchasing a new Samsung TV. In 2018, Samsung was also involved with EPA's "Flip Your Fridge" campaign where consumers can trade in old appliances for recycling and receive a rebate towards a new ENERGY STAR certified refrigerator. This campaign is promoted through our home appliance product website. Further, Samsung has made a commitment to source 100% renewable energy for all its factories, office buildings and operational facilities in the US, Europe and China by 2020.

Website where company activities or programs are listed (optional):

https://www.energystar.gov/about/content/samsung_electronics_america Ensure website address begins with http://or https://

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.

<u>3. Cell Phones & Other Mobile Devices</u>: 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.

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).

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