

US EPA ARCHIVE DOCUMENT

## E-cycling Podcast

Consider for a moment how many electronic items you use on a daily basis. Whether it is a cell phone or smart phone, an MP3 player, a flat screen television or a computer that you have become dependent on, one thing is for certain: consumer electronics are an integral part of our lives.

According to the Consumer Electronics Association (CEA), Americans own approximately 24 electronic products per household and on average spend close to \$1200 to replace them annually; but what happens to your used electronics after you buy new ones?

Hello and welcome to another one of EPA Region 2's podcasts, a series of conversations about environmental issues we are faced with in New York, New Jersey, Puerto Rico and the Virgin Islands. I'm Elizabeth Myer and today we are here to raise awareness about the growing amount of obsolete electronics, how they affect our environment, and ways to recycle used electronics that are convenient for consumers and are also eco-friendly.

To talk about this, I am joined by Sophia Kelley, Public Affairs Specialist. Welcome, Sophia.

B. Thanks for having me.

A:

Before we go on, I have a pretty simple question: what exactly is meant by "e-waste" and "e-cycling?"

B:

Good question. "E-waste," short for "electronic waste" refers to electronic products that are discarded by consumers. As we heard earlier, this can encompass a wide array of products such as televisions and computer monitors, computers and their accessories -- like mice, keyboards, printers -- audio and stereo equipment, VCRs, DVD players, digital and video cameras, cell phones and chargers, telephones, wireless devices, video game systems, microwaves, alarm clocks.... The list literally goes on and on.

"E-cycling" -- short for "electronics recycling" -- is the process of reclaiming electronics from the waste stream, either as whole units ready to be re-used by another consumer, or as parts for materials recovery.

A:

Well, cell phones don't take up that much space. Is e-waste such a big problem? How much electronic waste *is* there in the US?

B:

You'd be surprised. Various reports estimate the amount of e-waste to be in the range of 2 to 4 percent of the entire municipal solid waste stream. And, while that might not seem like that much, consider a couple of things:

- First, in the U.S. that small percentage can translate to huge numbers! In 2007 discarded cell phones, TV's, computers, and computer accessories (including printers and faxes) totaled about 2.25 million tons!
- Second, e-waste is growing 2-3 times faster than any other waste stream!

A:

Whoa! That *is* a lot of waste! Where does it all go?

B:

Well, the good news is that a lot of these materials or products can be recycled, or "e-cycled." In 2007, about 18 percent of TVs and computer products that could be recycled, were. For cell phones, the amount was about 10 percent.

A:

So does the rest of it end up in landfills?

B:

Not necessarily. Some e-waste is actually exported for refurbishment and recycling, although comprehensive numbers on the amount of e-waste that is exported isn't available for all products or materials. We do know that in 2005, 61 percent of cathode-ray tube TV's and computers that were collected for recycling were exported for remanufacture or refurbishment (Cathode-ray-tubes are those the old-style kind of monitors, not the flat screen/plasma/LCD monitor kind)

A:

Okay, well, regardless of where it ends up, give me some good reasons as to why people should bother to recycle electronics?

B:

Well, there are several VERY good reasons why you should properly e-cycle and why EPA, municipalities, counties and states all over the country are taking steps to make that happen.

First, electronics are complex devices which are made of a wide variety of materials. Some of those materials such as lead, nickel, cadmium, and mercury could pose risks to human health or the environment if not disposed of properly. And although disposal in a properly managed modern municipal landfill is protective of human health and the environment, EPA still encourages e-cycling where possible because it helps cut down on the negative environmental impacts associated with producing new electronic products.

These negative impacts come from the high environmental cost of mining for precious and semi-precious metals used in electronics, as well as the huge amount of energy it takes to manufacture these products. Consider that:

- recycling just one million cell phones saves enough energy to power more than 185 U.S. households with electricity for a year!
- Recycling one million desktop computers prevents as much greenhouse gas release as taking 16,000 passenger vehicles off the road a year!

A:

Hmm, so e-cycling is good for human health, good for the environment and it conserves natural resources...anything else?

B:

Yes. As if that weren't enough incentive to encourage you to e-cycle your electronics, e-cycling can also help others. Donating your used (but working) electronics can benefit others by passing on ready-to-use or refurbished equipment to those who need it but may not be able to afford it. This can include non-profit organizations, schools, and community centers.

A:

Well, those all sound like great reasons to e-cycle to me! So, is e-cycling all that's required for me to be an environmentally responsible electronics consumer?

B:

Actually, if you really want to boost your eco-friendly e-consumer quotient, consider thinking about the full impact of your electronics equipment, not just what happens to it at its end-of-life.

A:

So, buying "green?"

B:

Exactly; buying "green" to begin with. Environmentally responsible electronics use involves not only proper end-of-life disposal and e-cycling, but also purchasing new equipment that has been designed with environmentally preferable attributes. Think about this when purchasing new equipment, and ask your retailer or electronics supplier about environmentally preferable electronics. Households, companies, and governmental organizations can actually encourage electronics manufacturers to design greener electronics by purchasing computers and other electronics with environmentally preferable attributes and by requesting takeback options at the time of purchase. You can look for electronics that: contain fewer toxic constituents; use recycled materials in the new product; are energy efficient (e.g., showing the Energy Star label); are designed for easy upgrading or disassembly; use minimal packaging; offer leasing or takeback options; and meet performance criteria showing they are environmentally preferable.<sup>1</sup>

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A:

Now, I know *why* I should e-cycle and how I can use my purchasing dollar wisely. But walk me through the next steps: *how* exactly do I e-cycle? Where do I begin?

B: Well, first of all you need to collect your items and make sure they are clear of all personal or sensitive data. Copy any data you want to keep, then erase all personal and confidential data on the old equipment before sending it for recycling or reuse. Reformatting your hard drive or deleting files does not destroy your data. On our website, [epa.gov/plugin-in](http://epa.gov/plugin-in), we have a document called “Do the PC Thing” that walks you through the steps of how to clear data and donate or recycle your computer.

A: Good advice. Once it’s ready, where can people take their stuff?

B:

It is a logistical challenge that we do not yet have large-scale curbside recycling for electronics, so it is up to the consumer to find recycling locations. You can search for specific locations near you on our website or at [Earth911.com](http://Earth911.com). Call ahead to make sure which items the facility accepts.

USVI: In the U.S. Virgin Islands, the V.I. Waste Management Authority accepts electronics quarterly. St. Croix residents can e-cycle at Williams Delight, phone number 340-712-4962. St. Thomas and St. John residents can e-cycle at Warehouse 17 in Subbase, phone number 340-774-4139. Be sure to call ahead to learn more about when electronics are accepted.

PR: Information about where to e-cycle in Puerto Rico can be found at <http://www.ads.gobierno.pr/> and selecting reciclaje from the menu on the left or by calling 1-866-732-4252.

Some communities organize electronics recycling events locally and many manufacturers and retailers provide take-back programs. For information about specific retailers, check out EPA’s Plug-in to Recycling partners at [www.epa.gov/plugin](http://www.epa.gov/plugin).

The Plug-In To eCycling Program is EPA’s Partnership with manufacturers, retailers, and state and local governments to provide consumers with more opportunities to donate or recycle their used products.

A:

So, what are states doing to promote e-cycling?

B: In our region, New Jersey passed a producer responsibility law in January 2008 that requires manufacturers to establish a recycling program for computers and televisions. For locations of facilities that recycle other items, visit New Jersey’s Department of Environmental Protection website at: [nj.gov/dep](http://nj.gov/dep) and click on “Recycling.”

A: What about New York?

B: New York City has had e-cycling legislation on the books since 2008, but a new statewide law supersedes the city's and by spring of 2011 requires manufacturers to offer free drop-off recycling programs. City law prohibits the disposal of rechargeable batteries, such as those found in cell phones, while state law requires that all cell phone service providers accept cell phones for reuse or recycling.

In addition, under the new legislation, manufacturers will be required to recycle or reuse a certain amount of electronic waste each year, depending on the company's market share of electronic sales in New York State.

Starting Jan. 15, 2015, consumers will also be prohibited from throwing out e-waste in their garbage or dumping it at a landfill.

The new state law includes electronics like television sets, computers, printers, keyboards and DVD and MP3 players, but excludes appliances such as refrigerators, washing machines, clothes dryers and microwaves.

A: OK, once I've found a retailer or a recycling facility near me, how do I make sure the recycler is reputable? Are some recyclers better than others?

B: Great question! On our website, we also have our safe recycling guidelines, and that's a good place to start in terms of what to look for in a recycler or a refurbisher. Generally, make sure to ask the facility representative for the basic recycling and management practices. Can they provide a thorough description of their processes including if they send some materials abroad or for disposal? Feel free to ask for compliance history and documentation or certification of their claims.

There are also recycling certification programs, such as R2 and eStewards, that EPA believes advance environmentally safe practices. Certified electronics recyclers should be able to highlight their environmentally sound practices to customers.

A: So now we've discussed what is meant by electronic recycling and why it is so important to e-cycle used electronics. We have also learned various ways that we can be responsible consumers as well as how and where to e-cycle across New York, New Jersey, Puerto Rico and the Virgin Islands.

Thank you for joining us today, Sophia.

B. Thank you!

