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Put e-waste in its right place

Old TVs, cellphones and other electronics don't belong in the trash; they should be recycled.



Miguel Ceballos, right, and Lazaro Trejo strip copper from various electronic devices that have been disassembled at the e-Recycling of California processing facility in Paramount. (Al Seib / Los Angeles Times)

By Susan Carpenter
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If all the Consumer Electronics Show coverage this week has you scheming to buy the new Google smart phone or a 3-D home theater system, you aren't alone. Americans have an insatiable appetite for the latest and greatest gadgets.

So what if we own an average of 23 consumer electronics per household. That doesn't stop us from wanting even more.

But all those flat-screen TVs and iPhones come with an environmental cost. E-waste is the fastest-growing waste stream in the U.S. -- growing at a faster rate than regular household garbage and other mounting problems such as spent batteries and compact fluorescent light bulbs.

Americans got rid of 27 million TVs, 205 million computer products and more than 100 million cellphones and PDAs in 2007, according to the most recent figures from the U.S. Environmental Protection Agency. Just 16% of that equipment was recycled. The rest was carted out to the garage, stowed away because of consumers' confusion about what to do or, more commonly, sent to the landfill, where the glass, plastics and metals were crushed into submission and buried with the banana peels and fast-food wrappers, never to be seen again.

"Ten years ago, electronic waste wasn't even on our radar," said Thea McManus, associate director of the EPA in Washington, D.C. Now, she said, "It's an issue that needs special management."

Yet there is no federal law governing electronic trash. Although the EPA offers e-waste guidelines to consumers, manufacturers and retailers through a program called Plug-In to eCycling, and e-waste legislation is being drafted in Congress, consumers often are confused about what to do with that

cellphone when its buttons stop functioning, or that bulbous and formerly high-tech TV that is now an outdated embarrassment. Navigating the mishmash of mom-and-pop recycling centers, government-sanctioned drop-off spots and retailers' programs can be difficult.

Because many consumer electronics are thrown away long before they die, the EPA suggests reuse and refurbishment rather than the trash can as the first course of action "to mitigate the digital divide" between the perpetually upgrading, gadget-hungry haves and lower-income have-nots. Recycling, McManus said, "would be the last approach."

Though landfills are safe and highly engineered to handle disposal of electronics, she said, "that shouldn't be our first tier of waste management."

Even so, California is one of just 20 states that bans electronics from landfills because of their hazardous materials, such as the lead in cathode-ray-tube TVs, and their potential to be reclaimed and reused. Recapturing raw materials such as copper saves the energy, expense and environmental cost that it would have otherwise taken to mine new.

E-recycling options

Since 2005, California has required consumers to pay a recycling fee at the point of sale for many, but not all, electronic devices with a screen, including TVs, computer monitors and portable DVD players. The \$8 to \$25 fee is used to offset the cost of state-approved recyclers who break down, or "de-manufacture" the device, selling component parts on the commodities market or to companies that further process the materials.

That has resulted in a bevy of recycling options, many operated by government (like the city of L.A.'s Bureau of Sanitation), retailers (such as Best Buy and AT&T) and manufacturers (such as Panasonic, Toshiba and Sharp, which sponsor a program called MRM).

In L.A., about 3 million pounds of e-waste are recycled through the city each year. Taken in at city-run mobile collection events and its six "SAFE" centers, the electronics are then de-manufactured by two state-certified contractors, e-Recycling in Paramount and Electronic Recyclers International in Fresno.

In 2002, when Electronic Recyclers opened, it recycled 10,000 pounds of e-waste its first month. Now the company, the country's largest e-recycler, processes 15 million pounds of e-waste each month at seven locations in six states. Among the firm's 2,000 clients: Best Buy, which "takes back consumer electronics and appliances regardless of where you bought it, what brand it is or how old it is" said Chris Boik, senior manager of environmental affairs for the Minnesota-based chain.

If the item is too large to process through a retail location -- a television with a screen larger than 32 inches or any major appliance, such as a washer/dryer or refrigerator -- the company offers a free haul-away service any time a Best Buy representative visits a customer's house. That could be a delivery person with a new TV or a member of the Geek Squad setting up or repairing a computer.

Since the retailer kicked off its e-recycling program last February, it has taken in more than 1 million e-castoffs.

"Our customers were increasingly looking to us to help them solve the problem of what to do with the old TVs," said Leo Raudys, senior director of Best Buy's environmental affairs. "It's quickly morphing into a core business function."

What happens to it

Raudys noted that the program is an expense for the company, but the hope is that it could break even, given increasing commodity prices and the additional foot traffic e-recycling brings to Best Buy's 1,000-plus locations.

What happens to e-waste once it's passed out of a consumer's hands varies. There are essentially two receivers of e-waste: collectors and recyclers. Collectors take the recycled item from the consumer. The collector then gives the item to a recycler, who breaks it down into component pieces, separating a TV screen from its plastic case or a hard drive from a laptop computer, for example. The recycler breaks down those components into salable commodities, such as plastic, glass or metal.

In California, legitimate collectors and recyclers are certified by CalRecycle, part of the state's Department of Resources, Recycling and Recovery. At present, 630 certified collectors and 60 certified recyclers are in California, and all are subject to site visits.

Although California is at the forefront of safeguards, there are loopholes. The state's definition of e-waste is fairly narrow; it does not include so-called "universal waste," such as iPods, microwave ovens and other items containing electronic components or plugs. There are also unscrupulous recyclers who may claim to handle e-waste responsibly but are sending it to developing nations that lack proper environmental and human rights oversight. Before e-cycling, consumers should check that the handler or recycler is certified with the state or that the recycler belongs to the Basel Action Network, a global toxic-trade watchdog organization that works to prevent the shipping of e-waste overseas.

<http://www.latimes.com/features/home/la-hm-ewaste9-2010jan09,0,6056940.story>