



E-Waste: The Final Frontier

by Trey Granger on October 11th, 2007

So you've just returned from an electronic waste recycling event after unloading your old computers, cell phones and televisions. But what happens next to ensure that as little of these products gets placed in a landfill as possible?

Many of us have probably seen a cube of aluminum cans ready to be reformed into new aluminum cans within 60 days, but e-waste is not composed of just one material. Electronic devices are constructed with lots of different materials, so recycling of e-waste is a more complex process.

Recycling E-Waste

To understand the e-waste recycling process, one must first realize that e-waste recyclers (and in general, all recyclers) are interested in both saving these devices from landfills as well as getting the most value out of these materials. Electronics such as computers and televisions are made with some valuable metals, including copper and gold, which can be sold and then reused in alternative capacities.

From an environmental standpoint, the fact that these items are being reused is far more important than the fact that recyclers are making money off of it. E-waste recyclers are also recycling and reusing materials that aren't nearly as valuable.

"A full 99 percent of all materials that go through our doors are recycled—meaning that they go into reuse of some sort," says John Shegerian, Chairman & CEO of Electronic Recyclers Inc., the largest e-waste recycler in California. "The vast majority of these materials are used for new electronic items because some of the material, the plastic, for example, is the right grade for electronic devices to begin with."

Shegerian adds that material from electronics can be used for other products, such as plastic components that are used in the manufacture of lighters.

Putting the Waste in E-Waste

If 99 percent of the material is recycled, that still leaves a small percentage that will end up in the landfill because it has no reuse value. So what materials fall into this category?

"For us, that one percent is wood, such as the wood paneling on some of the older models of television sets – which has no value to us," says Shegerian. "That's why we are able to say that 99 percent of the e-waste we get is recyclable, because wood makes up only a fraction of one percent."

This is certainly not an excuse for those with wood paneled TVs to not recycle, as one percent waste is still much better than 100 percent. The good news is that many of the televisions in circulation these days

don't have wood paneling on the front. If you check out Panasonic's page on the components of a television, wood paneling isn't even listed.

Hazardous Waste Disposal

The other big issue regarding e-waste recycling is the end result for its hazardous materials, including lead and mercury. While e-waste only accounts for two percent of America's garbage in landfills, it accounts for 70 percent of the toxic garbage.

For e-waste recyclers, removing the toxic materials is just as important as removing the most valuable materials like gold and copper. To remove the lead you'll find in computer monitor glass, the glass will be placed in a furnace where the lead can be taken out. Circuit boards are sent to refineries so the mercury can be removed professionally.

"At Electronic Recyclers, everything is carefully separated by trained recycling employees and the various elements that make up e-waste are then recycled in the most environmentally friendly manner possible."

Sources:

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