

E-waste piles up trash and treasure Recyclers of electronics dig into a business that's high-growth

By BRAD HEM of the Houston Chronicle
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As ever more amazing gadgets make older ones seem obsolete, and consumers become more aware of recycling opportunities, the business of e-cycling is booming, industry sources say.

Some people are motivated by the fact that the old computer gathering dust in the corner of the garage might have some life left in it, and it might even earn them a couple bucks at an electronics recycler. Same with the old TV, VCR, phone, laptop or other electronics. Or they may feel guilty about those things winding up in a landfill.

Whatever the reason, recyclers report rapid growth.

"We've seen a tremendous amount of growth over the last three years," said Mike Thorn, executive vice president at Technology Recycler, one of the companies that collect e-waste in Houston. "It's been put more in the public eye."

Houston-based Waste Management in August announced a partnership with consumer electronics giant Sony to recycle all of that company's products nationwide.

Waste Management is developing a network of recyclers in all 50 states to collect Sony electronics, break them down for the valuable parts and recycle them into new products, Waste Management spokesman Wes Muir said. The boom in computer and electronic equipment in the last decade has made the program necessary, he said.

"It's created a new waste stream," he said. "There's high interest in this."

The economics of recycling old electronics, though, varies wildly because these complicated devices are a mixture of trash and treasure.

It can be costly to take them apart, but the gold,

copper, aluminum and other components found in outdated equipment can make it worthwhile. While recyclers will pay for some things, they typically charge to recycle devices that are more trouble than they are worth.

So far this year, the city of Houston has collected 208 tons of electronic waste at its three drop-off locations. That's double what the city collected in the last six months of 2006, when it began collecting this data.

"There's just more of it," said Marina Joseph, spokeswoman for the city's solid waste department. "Over the years, people are replacing their gadgets faster and faster."

And the numbers are bound to continue climbing.

Earlier this month, a new state law took effect, requiring computer manufacturers such as Dell and Hewlett-Packard Co. to accept their branded equipment for recycling at no charge.

Dell collected 78.4 million pounds in 2006, up from 40.6 million pounds in 2005 and 16.5 million pounds in 2004, according to the company. IBM said it recovered 108 million pounds in 2006. HP recycled 164 million pounds and reused an additional 23 million pounds of electronics in 2006, the company said.

Environmentalists have been pushing for more recycling as a way to keep people from dumping electronic junk, including dangerous materials, in landfills. But, despite the increase in recycling, it's impossible to say how much electronic waste is still winding up in the garbage.

Where it goes

Everything the city collects goes to Tushar Patel's company, ScrapComputer.com, where it gets broken down for parts or scrap. Computers with Pentium 4

or newer processors still have value and can be resold in developing countries, primarily China, he said. Pentium 3 processors can be sold, but the margin there is much slimmer.

"I have to spend \$15 to make \$20," Patel said.

Dell ships most of its reclaimed computer equipment to China, said Joe Strathmann, senior manager of asset recovery services.

Resale market

"There is a strong resale market for functioning equipment," he said. "Sometimes the sum of the parts is greater than the whole."

The same environmental concerns that prompted Dell to start recycling computer equipment keep it from sending nonfunctioning systems to China or other countries where hazardous materials might get dumped into landfills.

"You want to be careful that you're not shipping it to a place that doesn't have the same standards for protecting the environment as we do," Strathmann said.

Electronics recyclers in Houston and the computer companies themselves have different policies on what kind of equipment they'll take, what they'll pay for, and what they'll charge people for.

Generally, the newer a computer, the greater the value

and the more likely a collection site will pay a few dollars for it. CompuCycle — the Houston recycler that accepts Sony electronics on behalf of Waste Management — pays for laptops and computers less than five years old.

But televisions and monitors can cost it money to disassemble and get rid of because their screens often contain high amounts of lead. Charges are usually around \$8.50, depending on how old the equipment is, CompuCycle vice president Clive Hess said.

"We pay for products that have value," Hess said. "We charge for products that we have to pay to get rid of."

Houston residents who want to avoid fees can take the e-waste to the city drop-off sites.

Erasing hard drives

These times of identity and data theft have sparked computer recyclers to take extra steps to protect the donors' personal information.

CompuCycle and others plug functioning computers with resale potential into special machines that wipe out the hard drives' memory. Older drives that can't be resold get shredded into tiny pieces of twisted aluminum and steel.

"We can erase 240 drives a day," Hess said, picking up a handful of hard-drive shards out of a box. "Anything we can't resell, we shred."