

Time to face facts

Recycling electronic equipment



Richard Bray

ELECTRONICS INVENTORIES MAY be worth a lot less than organizations currently believe. In fact, if there haven't been any recent equipment upgrades, the aging fax machines, copiers, printers and computers may well have a negative value – rather than provide some sort of resale return, it may put a significant hit on budgets to dispose of it in an environmentally sound manner.

In the last 10 years, Bo Brodie of Ottawa's Computer Recyclers has seen the market for used electronic equipment reverse itself completely. When he opened his first facility in the city's west end, there was a healthy profit on the retail side – buying and selling used computers, parts and peripherals. The scrap side was lucrative as well, because equipment cases were made of high-value steel or aluminum, and circuit boards contained relatively high amounts of gold and copper.

Now, Brodie says, "Those days are gone. Long gone." Just a few years ago, customers could get good money for their used equipment. Today, however, prices for new systems are so low that there is absolutely no profit in all, but the highest quality second-hand systems. As for scrap value, in the drive to build less expensive systems, manufacturers have successfully 'thin-walled' their products, substituting lower-quality plastics and metals wherever possible. Inevitably, one side effect has been to take most of the scrap value out of used equipment.

Just a few months ago, Brodie would still accept used equipment for free recycling. Today, he is planning to fence in his parking lot, to prevent 'midnight dumpers' from making their liabilities his responsibility.

These days, Brodie reports, he is charging customers by the pound to recycle their used computers, printers, modems and cell phones. Some have difficulty accepting the fact that their used electronics are worth less than nothing.

"Most of them pay," he said, "but they leave literally scratching their heads, wondering what just happened."

Of course, people and institutions can still legally throw their waste electronics out in the garbage (although many governments are considering banning the practice) or hand them on to scrap dealers, but Brodie points out the harm that that does to the environment. "The equipment either goes to landfill," he said, "where its poisons will eventually leach into the ground or dealers send it to the Third World, where it is disassembled under very bad conditions."

Brodie is adamant that there is absolutely no alternative to paying for electronics recycling. "If someone pays you for old equipment, or even takes it away for free, you can be pretty sure that it isn't being properly recycled. It costs money to do it right." Even donating used machines to charity simply postpones the day when they are shipped to China or Pakistan, or bulldozed into a municipal dump.

Leased equipment, Brodie said, is no different. When used electronics are returned, a leasing company faces exactly the same choices: charitable donation, if possible; shipment to the Third World; landfill; or, end-of-life recycling.

Brodie was only able to offer his customers a true end-of-life solution in the summer of 2003 when Noranda Recycling opened its electronics recycling plant in Brampton, Ontario. Every month, the facility will process about 1,000,000 pounds of cell phones, computers, printers, fax machines, and copiers. Everything is recycled.

Workers at the plant strip dangerous items like toner and batteries out of the equipment before sending it into a series of machines that chop, shred and separate the electronics into its constituent materials, like steel, copper, plastic and aluminum. The various streams are sent to smelters where metal can be recovered.

Brodie, and many others, have long been particularly concerned about monitor recycling. "In an average computer monitor or television, there are 4-6 pounds of lead found in the CRT (cathode ray tube) alone, as well as metallic lead, tin, cadmium, zinc and a hundred other organic and inorganic substances found in the circuit boards," he said. At its Brampton plant, Noranda disassembles monitors and ships the leaded CRT glass to a smelter in New Brunswick where the lead is recovered.

Brodie says many business people understand the need to pay for electronics recycling, because they already 'see' their charges for garbage disposal in a way that most home-owners do not. He hopes governments will also face the facts and recognize that there is now an additional cost to add to the purchase and maintenance of computers, fax machines and photocopiers – recycling.

Even today's disposal costs for obsolete electronic equipment could soon look like a bargain. The same market forces that have greatly increased the 'bang per buck' of new equipment and lowered scrap values are still operating, so the price tag on true end-of-life recycling has only one way to go – up. ♪

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