

New definition for trash TV

With digital rule on horizon, outmoded sets piling up



James Capecea of Veolia Environmental Services adds an outdated monitor to the pile at a recent collection day in Marlborough. (Globe Staff Photo / Bill Polo)

By John Dyer, Globe Correspondent | October 25, 2007

David Sullivan's 1987 Sony TV was broken and collecting dust for years, a remnant of sitcoms from seasons past. Because the TV contained lead, state law prohibited him from throwing it in the garbage. Inertia kept him from calling someone to cart it away. So Sullivan kept the television until Oct. 13, when he found time to drop it off during Marlborough's household hazardous-waste day.

"Everyone has two or three TVs in their home," Sullivan said as he left the Easterly Wastewater Treatment Plant, where workers were collecting TV sets and computer monitors as well as old paint cans, propane tanks, and other chemical-laden products for recycling. "I'm down to two TVs now," the Marlborough resident said. "It wasn't worth getting it fixed. Technology is changing."

With earlier generations of televisions reaching the end of their functioning lives, and flat-screen technology replacing the familiar cathode ray tube - the conventional glass screen in box-shaped TV sets and computer monitors - local officials and private recyclers say Massachusetts has been experiencing a bumper crop of discarded television sets in recent years. And that crop is set to grow even larger.

In 2005, according to the most recent data available from the state Department of Environmental Protection, Massachusetts residents recycled 5,500 tons of CRT televisions and computer monitors at town transfer stations and other facilities. In 2000, the year after the Legislature passed the country's first ban on depositing televisions in landfills, residents tossed only 167 tons. That's a 33-fold increase in seven years.

In 2005, commercial recyclers across the state accepted 18,500 tons of CRTs, compared with 4,800 in 2000.

Towns often need to contract with private recyclers to dispose of CRTs, passing on the cost to residents in the form of small fees, usually around \$10. Often, communities will hold special free collection days, like Marlborough's, once or twice a year. The two private companies that process much of the CRTs collected by Massachusetts towns say business is booming and predict they'll be handling more in the future.

Electronics Recyclers in Gardner has processed 2,700 tons of CRTs this year already, compared with 2,500 tons last year, said Dick Peloquin, its vice president of operations.

Veolia Environmental Services of Stoughton expects to process as many as 50,000 discarded televisions and monitors this year, and more next year, said Paul Conca, Veolia's operations manager for the Northeast. "That is probably less than a 10 percent share of the market in this region," Conca said. "What we're seeing now is a gradual, overall increase."

The onslaught of dead televisions arises from two conflicting trends in prosperous areas, experts said. On one hand, technology is constantly changing, driving the purchase of the most up-to-date gadgets. In 2005, 130,000 computers were discarded in a single day across the country, a federal Environmental Protection Agency report found.

"You buy a PC, and in two years it's a dinosaur," said Brooke Nash, branch chief for municipal waste reduction programs at the state DEP. "There's a huge turnover."

On the other hand, most people are slow to divest themselves of their old equipment, and there have yet to be offered cheap and convenient ways to unload old CRTs. The result is basements and attics piled high with old electronic items.

At Electronics Recyclers, Peloquin said he was amazed to discover that his company would earn \$3.50 in profit from recycling a computer he purchased in 1995 for \$2,500. "Now I know why my customers act like they act. I paid a lot of money for that damn thing, and now it's useless. I think it's a reason why people keep their material."

Electronics Recyclers and Veolia dismantle old TV sets, often by hand, charging towns around 20 cents per pound for the service. The companies then sell parts from the televisions. A copper coil at the base of the glass CRT is worth 50 to 60 cents per pound, for example, Conca said. Circuit boards contain gold and other metals. Even plastic is melted down and reused.

The CRTs themselves aren't very valuable. They are mostly glass, and few if any American manufacturers are still producing televisions or monitors that use them, said Lynn Rubinstein, executive director of the Northeast Recycling Council, a nonprofit organization that promotes recycling.

Some CRTs are sent to domestic smelters, where lead inside the glass is extracted for reuse. More often, intact CRT's go abroad to underdeveloped countries with thriving second-hand television markets, Rubinstein said. "People are taking CRTs and filling container ships."

The problem is that many underdeveloped countries don't have the environmental safeguards that protect their own citizens from unscrupulous manufacturers, Rubinstein said. "There are reputable recyclers overseas," she said, but added, "some of it gets disposed in truly horrible ways. You don't know what is happening unless you are truly tracking the material."

Conca acknowledged that many CRTs wind up by the side of the road here or abroad, but said Veolia followed state guidelines that mandate proper disposal techniques. "We don't endorse just throwing these things into a truck. There are some recyclers who may not take the best care."

However CRTs are recycled, expect the current trends to be magnified in the next few years, Rubinstein said. A nationwide upgrade from the existing analog television signals to all-digital broadcasts, scheduled for February 2009, will make older television sets obsolete and is expected to prompt a massive switchover to TV sets capable of handling the new technology.

"There's been this building anxiety that at one moment, everyone in the US is going to throw out their CRTs," she said. "There's going to be millions and millions of them at once. How do you deal with that?"

Massachusetts lawmakers are debating measures that would shift the costs of CRT disposal to manufacturers. Zachary Crowley, research director for the Legislature's Joint Committee on the Environment, said one proposal would apportion CRT recycling costs according to each company's share of the state's market in electronic goods. Another proposal would audit recycled CRTs and bill their

original manufacturers. Either way, consumers are likely to be charged more for the extra costs, said Crowley.

In the meantime, private retail chains like Framingham-based Staples are now accepting old computer monitors for \$10 apiece. Companies like Intel, with an office in Hudson, also sponsors days when it accepts old electronic waste. Numerous private trash haulers will also pick up televisions and computer monitors for a fee.

Intel employee and Marlborough resident Michael Petrow, who dropped off a 1996 Magnavox TV at the city's recent hazardous waste day, said he is always dumping old electronics equipment. "Whenever there's a disposal program, I take advantage of it."

Still, said Petrow, he always seems to find more to throw out.