

A Green Way to Dump Low-Tech Electronics



Stuart Isett for The New York Times

Workers disassembled discarded televisions, computers and other items at Total Reclaim in Seattle, a warehouse that in January was designated a collection point for discarding electronics.

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This month, Edward Reilly, 35, finally let go of the television he had owned since his college days.

Although the Mitsubishi set was technologically outdated, it had sat for years in Mr. Reilly's home in Portland, Me., because he did not know what else to do with it, given the environmental hazards involved in discarding it.

"It's pretty well known that if it gets into the landfill, it gets into the groundwater," he said. "Its chemicals pollute."

But the day after the nationwide conversion to digital television signals took effect on June 12, Mr. Reilly decided to take advantage of a new wave of laws in Maine and elsewhere that require television and computer manufacturers to recycle their products free of charge. He dropped off his television at an electronic waste collection site near his home and, he said, immediately gained "peace of mind."

Over the course of that day, 700 other Portland residents did the same.

Since 2004, 18 states and New York City have approved laws that make manufacturers responsible for recycling electronics, and similar statutes were introduced in 13 other states this year. The laws are intended to prevent a torrent of toxic and outdated electronic equipment — television sets, computers, monitors, printers, fax machines — from ending up in landfills where they can leach chemicals into groundwater and potentially pose a danger to public health.

The Environmental Protection Agency estimates 99.1 million televisions sit unused in closets and basements across the country. Consumer response to recycling has been enormous in states where the laws have taken effect. Collection points in Washington State, for example, have been swamped by people like Babs Smith, 55, who recently drove to RE-PC, a designated electronics collection and repurposing center on the southern edge of Seattle.

Ms. Smith's Subaru Outback was stuffed with three aged computer towers that had languished in her basement after being gutted by her teenage sons, who removed choice bits to build their own souped-up computers. "It's what geeks do," she said.

Since January, Washington State residents and small businesses have been allowed to drop off their televisions, computers and computer monitors free of charge to one of 200 collection points around the state. They have responded by dumping more than 15 million pounds of electronic waste, according to state collection data. If disposal continues at this rate, it will amount to more than five pounds for every man, woman and child per year.

Use of the drop-off points was so overwhelming at first that the Washington Materials Management and Financing Authority, which oversees the program, urged consumers to consider holding off until spring.

"We were getting 18 semi loads a day when the program first started," said Craig Lorch, owner of Total Reclaim, a warehouse on the south edge of Seattle that is among the collection points.

Still, states that pioneered the electronic recycling laws report that consumer participation remains strong over time. Maine, which was one of the first to approve such a law, in 2004, says it collected nearly four pounds of waste per person last year.

"If you make it easy, they will recycle their stuff," said Barbara Kyle, national coordinator of the Electronics TakeBack Coalition, a nonprofit group based in San Francisco. If products are recycled rather than dumped, parts of the machines are refurbished for new use where possible; if not, they are disassembled, their glass and precious metals are recycled, and the plastics, which have no reuse market, are often shipped overseas to developing countries for disposal.

The laws vary significantly from state to state. But in most, manufacturers are responsible for the collection and recycling system, although some will pay states or counties to handle the pickup. The newest laws tend to require recycling of a broader range of items, including printers and fax machines.

Many laws, including those for New Jersey and Connecticut and New York City (none of which are yet in effect) specifically ban residents from dumping electronics into the regular trash.

Least thrilled with the patchwork of laws are electronics manufacturers. “Our hope is there will be a national law before there is a law in every state,” said Parker Brugge, vice president for environmental affairs and industry sustainability for the Consumer Electronics Association, an industry advocacy group.

Mr. Brugge said it was difficult for manufacturers to keep up with dozens of laws and rules, many of which they consider impractical. New York City, for example, is pressing manufacturers to agree to pick up at apartment buildings.

Manufacturers say a reasonable rate for collection and processing of waste is 25 to 30 cents a pound. Still it is more than they say they can recoup from reselling the metals they harvest, particularly for televisions.

Peter M. Fannon, the vice president for technology and government policy at Panasonic’s North American subsidiary, said his company would prefer a national law that would put local governments in charge of collection and the industry in charge of recycling.

“We think it is unreasonable that an individual industry be designated as trash collector,” Mr. Fannon said.

State lawmakers counter that they cannot afford to wait for a national bill. With constant upgrades in technological capability, they say, manufacturers build obsolescence into many of their designs, causing outdated electronics to become the bane of the waste system.

The E.P.A. estimates that 2.6 million tons of electronic waste were dropped into landfills in 2007, the most recent year for which data is available. Once buried, the waste leaches poisons like chlorinated solvents and heavy metals into soil and groundwater.

Recycling programs do not address the problem of electronics that are already leaching poison in landfills. Nor do they prevent the frequent shipment of plastic shells covered with chemical flame retardants overseas to poor and developing nations; once there, they are often incinerated, because they cannot be reused, and spew toxic chemicals into the air.

The Office of the Inspector General at the Justice Department has a continuing investigation into accusations that several federal prisons with electronics recycling contracts had used inmates to do the work without taking adequate safety precautions, exposing them to unhealthy levels of airborne particles.

Ultimately, said Ms. Kyle, coordinator of the Electronics TakeBack Coalition, recycling does not eliminate the root problem: the vast amount of electronics generated in the first place and fated for disposal.

Carole A. Cifrino, the environmental specialist who manages Maine's e-waste program, said she hoped the strict recycling would eventually prompt manufacturers to rethink their designs.

"Maybe since they have some responsibility for the cleanup," Ms. Cifrino said, "it will motivate them to think about how you design for the environment and the commodity value at the end of the life."