



Electronics Recycling Pilot Projects in Retail Stores in Washington State



**Office
DEPOT**



King County Solid Waste Division

Pilot Projects

Good Guys

- Collected TVs at 4 store locations for 4 weeks.
- Charged customers \$10 for standard TVs, \$20 for console TVs.

Office Depot

- Collected computer equipment and small TVs at 870 stores in the continental U.S. for 6 weeks for free.

Pilot Project Goals

Tested:

- Logistical feasibility of electronics collection in retail stores
- Financial sustainability of a retail collection program
- Customer satisfaction
- Benefits to retailers

Findings

Voluntary take-back in electronics retail stores is logistically feasible.

- Good Guys took back 4,042 TVs (197,000 lbs) at 4 retail locations over 4 weeks.
- Office Depot took back 325,126 computers, peripherals and small TVs (4,900 tons) at 870 retail stores over 6 weeks.

Findings

Control the volume of equipment coming in to the stores.

- Charge customers an end-of-life fee – no free recycling.
- Provide the recycling service on an ongoing basis, not as a special offer or event.
- Offer a one-for-one take-back as a option.
- Limit advertising.

Findings

Voluntary retail take-back programs can be financed by charging a recycling fee.

- Based on the costs of the Good Guys pilot project, an ongoing collection program could be paid for by charging customers a fee of \$20 for standard TVs and \$30 for console TVs.

Findings

Based on the experience from King and Snohomish County, Wa Take it Back Networks:

- Ongoing collection program can be paid for by charging customers a fee of approximately \$15 for monitors and \$10 for computers and peripherals.

Findings

Customers were overwhelmingly satisfied with the service.

- Good Guys customers reported the service was convenient and would use it again if offered (99%).
- Office Depot customers reported the project was easy to use (99%), and they would be likely to use this service again if offered (100%).



Findings



Retailers can benefit from offering an ongoing program as part of their services.

- Significant media exposure – company cares about the environment
- New customers - 43% of participants were new to Good Guys
- Increased awareness – 4% increase in awareness of Good Guys in the Seattle market

Earned Media



TV treasures plucked from the trash heap

Golden-age TVs are cast aside for recycling, but some of them have a few good years left.

By Victor Ballo

Remains colorful? The answer? Phrases? Ehh?

There wasn't even a television in people's black-and-white watching eyes when the earliest television sets landed in their living rooms in the late 1940s and 1950s.

Looking back "Phenomena" accounts and "America's Bright" games later, the first TVs really were the best.



The 1950s model was the only one in Southern California that people owned, and it was the most TV with 18-21 inches in size, Bellows and Puyallup also participated in the campaign that ran from July 4 to Aug. 7.

The older ones that are in good enough condition are put aside and sometimes used by TV and movie production companies when they need period props.

Even past their useful years, they increase their value.

The value of the set was a 1953 Philco Model 4318. It is a "television full-size 21 inch console" with a "black mahogany panel" and features a speaker in an antique English finish, according to an original sales brochure found on www.1953.com.

"I think that one would have cost at least \$400, which was a lot back then," Linda Bergerson of Metro TV in Everett said, referring to the 1957 Philco. "People saved their money to get it then."

That set likely doesn't work.

"I look at it the other way, I didn't even want to play it," said Pam Kuffel, manager of Good Books in Seattle, the



Here & Now

Information to help you survive and thrive

CYCLING RIDER

For the love of the road, you can use the old TV sets to help you get off the road.

The program, organized by the Department of Ecology and the city of Seattle, will be held at the University of Washington. The program will be held at the University of Washington, Seattle, on July 21, 2004.



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IN BRIEF

Consumers who recycle TVs save discounts on new ones

Seattle's official cleanup of old televisions, radios and other electronics is getting underway. The program is being run by the City of Seattle, in partnership with the University of Washington, and is being held at the University of Washington, Seattle, on July 21, 2004.

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What to do with your old TV

By GARY CHETTM
Friday, July 23, 2004
Run time - 2 min 12 sec.

LYNNWOOD, Wash. - Every day Americans take hundreds of old, used television sets to the landfill and that's a problem.

TVs are full of toxins that threaten the environment.

But there's still time to take advantage of a local program that guarantees your old set will be properly recycled. Workers at the Lynnwood Good Guys store are busier than ever. They've got hundreds of worthless television sets to reuse.

They say they got a 100 more than they bargained for when they signed up for a program.

"We were expecting a few TVs to come in every day. We didn't expect the amount of people coming in we've had all day," said Dave Marnett, Good Guys store manager.

They got hundreds more than they expected and people still have a seven-foot line to drop off their sets at the Good Guys. So where do they go from there?

They go to a giant warehouse in south Seattle where they are stored up. Each one of these sets will be repaired and shredded down. So their most basic elements are crushed into fine bits, then melted through its separate bins.

The sets are dismantled. The materials recovered and sent up a conveyor belt to the powerful jaws of a recycling robot. Cameras inside the robot machinery show how the basic elements are crushed into fine bits, then melted through its separate bins.

"The plastic is going to a plastics recycler. The glass is going to a glass recycler, which will then come back in another TV," said Yvonne Paez, Time-Robotics.

And some of it ends up in a landfill. The Federal EPA likes the sound of that.

"Because a lot of folks don't realize there are heavy metals in all TV sets and eventually when they are taken to landfills those heavy metals will find their way into the groundwater," said John Lee, EPA regional administrator.

And with an estimated one million tons of home electronics shipped in landfills each year, the ground-water could see a break.

The EPA is sponsoring the program with Good Guys and King, Paez and Southland counties. It costs between \$10 and \$20 to recycle an old TV set. The program ends July 31, but if you're a fan, each of those agencies will give you advice on how to recycle your set.

<http://www.king.com/goodguys/televisionrecycling.html>

Findings

Partnerships with local governments provide additional publicity

- Take it Back network/Staples partnership commercial

http://www.metrokc.gov/dnrp/swd/electronics/multimedia/TIBN_TV.wmv

(requires Windows Media Player)



Recommendations

Ongoing voluntary electronics collection programs at retail stores where customers are charged end-of-life fees to cover the costs of collection, transportation and recycling can provide viable, sustainable collection options.



More Info

- Good Guys Report is available at www.productstewardship.net
- The following slide provide more detail.

Lisa Sepanski

King County Solid Waste Division

206 296-4489

Lisa.Sepanski@metrokc.gov



Good Guys Television Recycling Pilot Project – *Project Details*



Background

- Funding
 - EPA grant
 - Northwest Product Stewardship Council Governments
 - Electronics retailers, manufacturers
 - Residents
- Pilot Project Goals
- Design and Planning
- Implementation
- Results
- Lessons Learned



Good Guys Project Planning



- Recyclers selected
 - Philips Services Corp. and Total Reclaim, Inc.
- Manufacturer participation
 - \$5,000 each toward recycling
 - JVC, Philips, Pioneer, Samsung, Sharp and Sony
- Recycling fee
 - \$10 for standard TVs, \$25 for consoles

Good Guys Project Planning

- Staff Training
 - Safe handling, storage and packaging of the TVs.
- Customer surveys
 - Tracking satisfaction, purchases, reasons for recycling, frequency of visits to Good Guys.
- Discount coupon
 - 10% off new TV from participating manufacturers.



Project Implementation

- Ran from July 8 to August 7, 2004 (4 weeks).
- Customers brought TVs into stores
 - paid fee and filled out survey.
- Lynnwood and Tukwila stores used trailers to store TVs at the loading docks.



Project Implementation

- Puyallup and Bellevue stores stacked TVs in the back storage area.
- Pickups twice weekly or as needed.



- All TVs marked with a pink sticker to keep them separate from other inventory.

Advertising and Media

- Good Guys ran full page ads and preprinted inserts in 4 local papers.
- A front cover notice in their July catalog.
- Web site
- Government Partners issued Press Releases
- Held event at Bellevue store
- Flyers, handouts, etc.



Project Results

- Collected 4,042 televisions



Project Results

- Recycled materials totaled 166,000 pounds:
 - 26,000 pounds of plastics
 - 7,000 pounds of copper wire
 - 11,000 pounds of circuit boards
 - 15,000 pounds of other metals
 - 107,000 pounds of CRT glass (10,000 pounds of lead from the CRT glass)
- 2 - 5% of the coupons were redeemed.

Customer Survey Results

1,043 surveys returned:

- 99% reported the service was convenient
- 96% reported price was reasonable
- 99% would use the service again if offered
- 43% had never been to a Good Guys store before
- In a separate study conducted by Good Guys, awareness of Good Guys increased in the Seattle market by 4%.

Costs

Activity	Cost	%
Planning and Setup	\$66,748	30
Collection	\$4,239	2
Transportation	\$15,920	7
Recycling	\$33,299	15
Paid Advertising	\$74,247	33
Evaluation	\$28,515	13
Total	\$222,968	100%

Financing

Funding Source	Amount
EPA Grant	\$41,000
NWPSC government partners	\$38,088
Manufacturers (JVC, Philips, Pioneer, Samsung, Sharp and Sony)	\$30,000
Recycling Fees	\$49,090
Good Guys	\$64,790
Total	\$222,968



Office Depot Computer Recycling Pilot Project – *Project Details*

**Office
DEPOT.**



Background



- Ran July 18 - September 6, 2004
- 870 stores in the continental U.S.
- Accepted computers, monitors, peripherals, digital cameras, cell phones and small televisions (those with <27 inch screens) for free from residents.

Project Implementation

- Customers brought equipment to stores, set in carts
 - stored in the back of the store.
- Reverse logistics
 - OD delivery trucks picked up equipment from the stores.
- Equipment was consolidated at 10 Office Depot “cross docks”.



Project Implementation

- Hewlett-Packard was selected as the recycler.
 - Facilities in Roseville, CA and Nashville, TN
- HP trucks picked up equipment at OD cross docks and transported it to processing facilities.
- HP paid to transport the equipment from the OD cross docks to the processing facilities and to recycle it.

Pieces by Product Type

Product	Pieces	%
Monitor	113,375	35
PC	76,731	24
Other (pdas, cameras, copiers)	48,036	15
Printers	46,086	14
TVs (< 21inches)	24,798	8
All-in-ones	5,656	2
Scanners	5,579	2
Cell Phones	4,865	1
Total	325,126	100

Pieces by Weight

Product	LBs	%
Monitor	3,401,250	34
PC	2,301,930	23
Other (pdas, cameras, copiers)	1,441,080	15
TVs	1,239,900	13
Printers	968,615	10
All-in-ones	395,920	4
Scanners	111,580	.01
Cell Phones	4,865	.0004
Total	9,865,140	100



More Info

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