2005 Special Waste System Excellence Award Application

Submitted to:

SWANA
SOLID WASTE ASSOCIATION of North America

Submitted by:

King County
Department of Natural Resources and Perks
Solid Waste Division

April 4, 2005
SWANA 2005 SPECIAL WASTE SYSTEM EXCELLENCE AWARD
Good Guys Electronics Take-back Pilot Project

1. DESIGN OF COLLECTION FACILITY/MANAGEMENT SYSTEM

What type of collection and special waste management system was developed? Describe special event sites.

Electronic waste is a rapidly growing problem. Households in Western Washington will generate more than one million obsolete electronic products in 2005, more than half of which is comprised of used television sets. Disposal is challenging because these products contain toxic materials such as lead, mercury, and cadmium that, if improperly handled, can damage human health and the environment.

In the spring of 2003, the Northwest Product Stewardship Council government agencies including King County, Snohomish County, City of Seattle, City of Tacoma and Portland Metro applied for and received grant funds from the U.S. Environmental Protection Agency (EPA) to work with an electronics retailer to administer an in-store television collection and recycling pilot project that was modeled on the principles of product stewardship. The King County Solid Waste Division managed the project and administered the funds.

The purpose of the project was to test whether it was feasible to collect electronics for recycling in a retail store setting. In addition, the pilot project sought to determine if this type of program provided the public with convenient locations where they could bring their used electronics for recycling. The use of coupons good toward a discount on the purchase of new TVs from participating manufacturer brands was also tested to see if sales could be increased at the stores.

In August, 2004, Good Guys agreed to participate in the pilot project and invited customers to bring their old television sets to four Good Guys stores in King, Snohomish and Pierce Counties, Washington for recycling.

The Good Guys retail stores accepted televisions from customers during regular operating hours for four weeks from July 8 through August 7, 2004.

Customers paid a recycling fee of $10 for standard televisions and $25 for console televisions. Customers were asked to fill out surveys evaluating the program. The program was designed using a product stewardship model where electronics
manufacturers, retailers, consumers and local governments contributed to the funding and implementation of the pilot program. Funding for the project included the grant funds from EPA, contributions from Good Guys, electronics manufacturers JVC, Philips, Pioneer, Samsung, Sharp and Sony, consumers and the participating NWPSC government partners.

**Describe the operational plan design.**
Customers brought televisions to the Good Guys stores where they either carried the television into the store, or if the TV was too heavy, the Good Guys sales staff used a hand truck to move the TVs from the customer’s car into the store. Customers were directed to the cashier area to pay the fee and receive the discount coupon.

The TVs were stored in back of the store where they were marked with a pink sticker to indicate that the TV was part of the pilot program. This was important because there were some TV returns that were not part of the pilot project that were also stored in that area.

In the two larger stores, trailers were located on-site and televisions were loaded directly into the trailers. When the trailers were full, they were picked up by the recycler and empty trailers were left in their place. In the other stores with less volume, the TVs were stored in the back of the store and were picked up on a regular basis by the recycler. The recycler recorded the number and brand of TVs from each store.

**Is the system run cost effectively and with efficiency?**
The total cost of the pilot project was $222,968. This includes the costs to recruit retailers and manufacturers to participate in the pilot project and to plan, implement, publicize and evaluate the Good Guys pilot project. The costs to transport the televisions from the retailer to the recycling facility and to recycle the equipment averaged $0.25 per pound.

Almost a third of the budget, $66,748, was spent on the recruitment of retailers and manufacturers to participate in the pilot program. These costs would not be required if a retailer wanted to set up a collection program at their stores. Therefore it is likely that the costs for implementing an ongoing electronics take-back program at a retail store would be less than those reported in this pilot project. Costs could be reduced further by controlling the volumes of equipment coming in by limiting paid advertising, adjusting recycling fees and providing the program as a standard part of customer service.
Table 1. Summary of Project Costs

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and setup</td>
<td>$66,748</td>
<td>30%</td>
</tr>
<tr>
<td>Collection</td>
<td>$4,239</td>
<td>2%</td>
</tr>
<tr>
<td>Transportation</td>
<td>$15,920</td>
<td>7%</td>
</tr>
<tr>
<td>Recycling</td>
<td>$33,299</td>
<td>15%</td>
</tr>
<tr>
<td>Paid Advertising</td>
<td>$74,247</td>
<td>33%</td>
</tr>
<tr>
<td>Evaluation</td>
<td>$28,515</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Total Pilot Project Costs</strong></td>
<td><strong>$222,968</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The program was financed by a grant from the EPA, recycling fees charged to the customer, contributions from manufacturers, Good Guys and the government partners.

Table 2: Project Financing

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA Grant</td>
<td>$41,000</td>
</tr>
<tr>
<td>NWSC government partners</td>
<td>$38,088</td>
</tr>
<tr>
<td>Manufacturers (JVC, Philips, Pioneer, Samsung, Sharp and Sony)</td>
<td>$30,000</td>
</tr>
<tr>
<td>Recycling Fees</td>
<td>$49,090</td>
</tr>
<tr>
<td>Good Guys</td>
<td>$64,790</td>
</tr>
<tr>
<td><strong>Total Funding</strong></td>
<td><strong>$222,968</strong></td>
</tr>
</tbody>
</table>

**Innovative or unique aspects of the program. What makes this program different from the rest?**

This program was the nation’s first month-long TV recycling program to be offered by a large TV retailer where area residents could bring their old televisions for recycling. The program demonstrated that take-back of televisions at electronics retail stores is logistically feasible. In addition, this program used a product stewardship model that included contributions from electronics manufacturers, the electronics retailer, customers, local governments and from an EPA grant.

The program also tested the use of discount coupons to motivate customers to participate in the program. Although there was no significant increase in sales of televisions, according to Good Guys’ bi-annual Attitudes and Awareness study,1 awareness of Good Guys stores increased in the Seattle market from February through August 2004. In total, awareness increased by four percent during the six-month period. Although the research isn’t conclusive, it’s likely that the recycling program contributed to this increase.

The program also identified several key elements that are essential for conducting an electronics take-back program in a retail setting that is feasible and sustainable.

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1 Good Guys bi-annual Attitudes and Awareness study delivers a quantitative measurement of consumer perceptions of Good Guys and their competition. The study is conducted in an online format each February and August.
2. ENVIRONMENTAL BENEFITS AND REGULATORY COMPLIANCE

*Discuss the overall impact of the program on human health, environmental quality and resource conservation. Describe the use of alternative products, source reduction/reuse and/or recycling.*

The Good Guys pilot project collected more than 4,000 televisions, double the projected number. Total weight of all televisions was 197,000 pounds, or 98.5 tons. Recycled materials totaled 166,000 pounds, including:

- 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 (including 10,000 pounds of lead from the CRT glass)

*The program’s role in local community’s integrated solid waste management system.*

The responsibility for the administration of solid waste handling systems in Washington is divided among the state, counties, inter-jurisdictional health departments, and cities. The State Department of Ecology sets the minimum functional standards for the handling of solid waste in Washington. Cities and counties are required to adopt these standards via their local jurisdictional health departments. The cities and counties enforce these standards at their solid waste handling facilities and can set standards and policies that are even more stringent.

The cities and counties in this pilot project area have differing policies regarding the acceptance of electronic waste at their facilities. Table 3 provides an overview of the solid waste facilities and the waste acceptance rules.

In general, communities that have policies restricting electronic equipment from disposal have conducted a significant amount of public education about their e-waste bans and have provided information about recycling options. King County, the City of Seattle and Snohomish County operate a program called the Take it Back Network which is a group of local electronics repair and resale shops, recyclers and nonprofit groups that accept electronic equipment from the public for recycling and/or reuse. Brochures about the program are distributed by over 60 retail and nonprofit organizations. The government agencies also maintain Take it Back Network web sites featuring information about network members and their recycling services. However, there are a limited number of sites that accept televisions for recycling. This pilot project provided residents with a convenient, affordable recycling option for their used televisions.

*Details showing the site is in environmental compliance.*

The staff at Good Guys were provided with training before the project was launched. They were provided with information on collection, storage, packaging procedures, spill clean up and transportation requirements. The recyclers were required to comply with the EPA’s Guidelines for Environmentally Sound Management of Electronics and all materials were recycled domestically.
<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Population</th>
<th>Facilities</th>
<th>Electronic Waste Disposal Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Seattle (located in King County)</td>
<td>563,300</td>
<td>2 transfer stations</td>
<td>Prohibits disposal of computer monitors and TVs from both residential and commercial customers.</td>
</tr>
<tr>
<td>City of Tacoma (located in Pierce County)</td>
<td>193,200</td>
<td>Landfill/transfer station</td>
<td>Prohibits disposal of computer monitors and TVs from businesses, schools and non-profit organizations.</td>
</tr>
<tr>
<td>King County</td>
<td>1,737,000</td>
<td>8 transfer stations, 2 rural drop boxes</td>
<td>Prohibits disposal of computer monitors from commercial customers. <img src="2" alt="superscript" /></td>
</tr>
<tr>
<td>Snohomish County</td>
<td>637,500</td>
<td>3 transfer stations and 5 rural drop boxes</td>
<td>Prohibits disposal of computers, computer monitors, televisions, and other electronics that contain CRTs (cathode ray tubes), and separated computer circuit boards from all customers. Accepts computers and TVs for recycling at the transfer stations for a fee.</td>
</tr>
<tr>
<td>Pierce County</td>
<td>700,800</td>
<td>6 transfer stations</td>
<td>Accepts electronics for disposal.</td>
</tr>
</tbody>
</table>

2 King County plans to ban computers, computer monitors, televisions and cell phones from disposal at the transfer stations in mid-2005.
3. PROGRAM PLANNING

Description of the special waste management/collection system planning process. Discuss the plan for managing the special waste.
In the spring of 2003, the NWPSC drafted a joint grant proposal and applied for funds from the U.S. Environmental Protection Agency (EPA) to coordinate and evaluate a pilot project(s) in the Pacific Northwest to determine if it is logistically feasible and financially sustainable to take back electronic products, such as televisions, at big box retail stores. The EPA awarded funding to the project as part of its Plug-In to eCycling campaign in late August 2003.

The Plug into eCycling campaign had already signed on a large number of electronics manufacturers and retailers as “Plug-In Partners,” that were committed to collecting, reusing, and/or recycling old electronics. Partners included companies such as Best Buy, Staples, Dell, Brother, Epson, HP, Philips, Samsung, and others. The objective of coordinating the pilot projects with the Plug-In to eCycling program was to help recruit the Plug-In Partners to participate in the various pilot projects either by contributing funding to help offset the costs of recycling the products or to participate in the actual take back of electronics.

Manufacturer and Retailer Recruitment
Recruitment of the manufacturers and retailers began in June 2003. On behalf of the pilot projects, EPA staff with the Plug-In to eCycling program arranged several conference calls with the Plug-In Partners. The staff asked the Partners to participate in one or more of the pilot projects as part of their commitment to the Plug-In to eCycling program.

A letter was sent from EPA Headquarters to the Plug-In to eCycling partners, as well as major retailers and manufacturers who were not partners, officially asking for their participation in the pilot projects. In addition to the letter, the pilot project leads contacted the manufacturers’ representatives that they knew personally to discuss participation. The pilot leads also followed up with the Plug-In Partners who had not participated in any of the previous conference calls. These efforts did not product any participants.

With the failed attempts to recruit retailers and manufacturers to participate in the pilot project, the project leads decided to contact the “big box” electronics retailers in Washington and Oregon directly. A consultant to the pilot project, PRR, compiled a list of electronics retail stores based upon the following criteria:
- the retailer has several stores in the Pacific Northwest area;
- the retailer was headquartered in or had a major presence in this region and/or;
- the retailer had the ability to operate programs on a regional level vs. nationally.

As a result, Good Guys, based in Alameda, California, indicated that they would be interested in collecting televisions at several of their Washington stores for a limited period of time. The project leads hosted several meetings with the Advertising Manager at Good Guys to discuss the project details. The team drafted a Memorandum of Understanding (MOU) that outlined the responsibilities of the retailer and government partners. The MOU also contained a section outlining the data that Good Guys and the
government partners were required to collect for the pilot project. Representatives from King County (the official grant recipient), Good Guys and EPA Region 10 signed the MOU.

**Manufacturer Involvement**
In April 2004, Good Guys and the EPA sent a letter to Good Guys’ key television vendors asking them to participate in the pilot project. The Good Guys Advertising Manager then contacted the vendors via phone to explain the program in more detail.

Five television manufacturers - JVC, Philips, Pioneer, Samsung, Sharp and Sony - committed to participating in the project. The manufacturers made arrangements to contribute $5,000 each to the project to offset the recycling/processing costs.

In turn, Good Guys committed to advertising the companies as program co-sponsors in the following media and promotional materials:
- A minimum of two Sunday inserts in local newspapers
- Two pages of run-of-paper (ROP) newspaper advertising, or equivalent
- Press releases and media opportunities
- Grass roots communications to governmental agencies
- All in-store signage
- A "Thank you" coupon from Good Guys to customers that brought in a TV to be recycled. The coupon was good for 10% off the purchase of a new TV from the participating manufacturer brands.

In addition, Good Guys committed to sharing all program data with these manufacturers, including the number, sizes and weight of TVs collected, partners’ contributions, government contributions, overall program operational impact including staffing, costs, and the impact on business.

**Recycler Selection**
Good Guys, with the assistance of the project partners, solicited bids from several local electronics disassembly/recycling vendors. Good Guys asked the vendors to bid on an estimate of 500 TVs per store for a total of 2,000 TVs during the duration of the pilot project. These estimates were based on volumes generated by the Take-it-Back Networks in Snohomish and King Counties, Washington and on data from a one month long collection program held at Circuit City in the Minneapolis/St. Paul area in 1999.

Good Guys asked the bidders to provide cost estimates for picking up, transporting and recycling the TVs in addition to tracking by brand and size of television. Bidders were required to comply with Guidelines for Materials Management developed by the EPA for Plug into eCycling program partners.

Good Guys established an agreement with the vendor Philips Services Corporation (PSC). PSC agreed to package and transport the equipment from the four Good Guys stores and deliver it to Total Reclaim, Inc for disassembly and final processing. PSC was also responsible for tracking the number and brand of TVs that were recycled through the program.
Handling of Special Wastes
While reuse is higher on the solid waste management hierarchy than recycling, Good Guys and the government partners agreed that the local reuse market for televisions is very weak and can result in export to unmonitored facilities. They decided therefore that the complication and expense necessary for testing and identifying TVs appropriate for reuse was not warranted in this pilot. The various components from the television were processed as follows.

**TV Cases**
Total Reclaim employees remove the backs of the TVs by hand. The black TV cases on newer TVs are made of a fairly standard type of high impact polystyrene. Many of the cases are stamped with a symbol indicating the specific type of plastic. When the plastic can be identified, Total Reclaim sends these polystyrene cases to PC Plastics in Portland, Oregon. The plastics are ground, pelletized and reground. The pellets are sold to Panasonic in Vancouver, Washington to be made back into TV cases.

Plastics without the stamped recycling codes are baled with the white plastics and are exported for reprocessing because there are no domestic markets available for mixed plastic recycling. Since plastic is not designated as a hazardous material there are fewer concerns about exporting this type of material.

Console and projection TVs are made of many different types of materials including wood, fiberboard, and wood-grained plastics. None of this material is recyclable and is removed by hand and disposed as garbage.

**Cathode Ray Tubes**
The cathode ray tubes are removed from the TV cases. The metal band that encircles the glass tube is ground off, the yoke is taken off the funnel and any remaining plastics, metal or rubber is cleaned off the tube. The tubes are then gravity dropped from a conveyor belt to break the glass and remove the steel mask that is embedded in the tube. The glass was sent to Envirocycle for recycling back into CRTs.

**Metals**
The yoke, also called the "deflection coil", "or deflection yoke", is positioned at the end of the electron gun's emitter around the funnel end of the CRT. The yoke is an electronically controlled device that generates a strong magnetic field and is comprised of copper, steel and plastic. The yokes are separated from the rest of the metals and are run through the shredder in one large batch to isolate the copper from the other metals.
The remaining metal components include the housing supports, metal trays, circuit boards and wires. These are run through the shredder in one batch and are mechanically separated into ferrous and nonferrous metals and low grade circuit boards.

*Is the planning process effective? Discuss how the community concerns were addressed and resolved.*

The process to recruit the retailers and manufacturers to participate in the pilot project was time consuming and expensive. If the recruitment process could be streamlined or eliminated, the project would be more cost effective. If a retailer wanted to implement a program such as this, they could use the information provided by this pilot project to reduce their planning costs substantially. The process used to draft the MOU and to plan the logistics and collection infrastructure was straightforward and effective. Since this was a limited duration pilot project the community was not involved in the planning process.
4. PERFORMANCE, ECONOMICS AND COST EFFECTIVENESS

Describe the efficiency of the operation. Discuss operational performance – does it equal or exceed the goals and expectations set forth for this program?

The Good Guys pilot project exceeded expectations by collecting more than 4,000 televisions, double the number that was projected by the planning team. The total weight of all televisions was 197,000 pounds, or 98.5 tons.

Table 4: Televisions Collected Per Store

<table>
<thead>
<tr>
<th>Store</th>
<th>Standard TVs (by number)</th>
<th>Console TVs (by number)</th>
<th>Total (by number)</th>
<th>Weight (estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynnwood</td>
<td>1,673</td>
<td>239</td>
<td>1,912</td>
<td>93,000 pounds</td>
</tr>
<tr>
<td>Tukwila</td>
<td>855</td>
<td>126</td>
<td>981</td>
<td>48,000 pounds</td>
</tr>
<tr>
<td>Puyallup</td>
<td>356</td>
<td>110</td>
<td>466</td>
<td>23,000 pounds</td>
</tr>
<tr>
<td>Bellevue</td>
<td>580</td>
<td>103</td>
<td>683</td>
<td>33,000 pounds</td>
</tr>
<tr>
<td>Totals</td>
<td>3,464</td>
<td>578</td>
<td>4,042</td>
<td>197,000 pounds</td>
</tr>
</tbody>
</table>

Because of the large volume of equipment that came in – primarily to the Lynnwood and Tukwila stores - alternate arrangements had to be made for collecting and transporting the TVs to the recycler.

At the Lynnwood store, which received the largest number of TVs, an emergency pickup was required on the first day, Friday, July 9th. A 28 foot trailer was then placed on-site so that Good Guys staff could place the TVs directly into the trailer instead of having to stack them in the halls while waiting for the scheduled pickups by PSC’s smaller truck. As the volumes of TVs remained steady at the Lynnwood store, the recycler decided to switch from the 28 foot trailers to 42 foot trailers so they wouldn’t have to be replaced as frequently.

The Tukwila store also received larger volumes of material than was anticipated and after two and a half weeks of scheduled pickups by the smaller PSC truck, the recycler placed a 28-foot trailer on-site to handle the larger volumes. The Tukwila store had three loading bays which allowed the recycler to drop the empty trailer at one of the bays.

The other two stores continued to use the original system whereby PSC packaged and picked up the TVs several times a week using their small delivery truck. Both systems worked well once the details were ironed out. Two key lessons learned from the pilot project were:
1) Take-back of televisions at electronics retail stores is logistically feasible. The project demonstrated that electronic equipment, such as televisions, can be taken back at a retail store if the program is designed to accommodate the available storage space and staffing resources. Key elements to consider when designing the program include selecting appropriate packaging materials and storage sites, setting the appropriate frequency of pickup by the recycler and adjusting when necessary, and controlling the volume of materials that come into the store. It is also essential to have a contingency plan in case unexpectedly large volumes of equipment are brought in.

2) Managing volume is critical. For a program to be sustainable, organizers must control the volume of equipment to the maximum extent possible. Three elements – limiting publicity, charging recycling fees and offering the program on an ongoing basis – can be used to meter the volume of equipment coming in to the store.

How does the organization foster customer service?
Customers that participated in the Good Guys project and completed a survey about the project and were very positive about the program. In particular,

- 99 percent reported that the service was easy to use;
- 96 percent thought the price was reasonable;
- 99 percent reported that they were likely to use the service again if offered;
- 99 percent reported that store staff were helpful and knowledgeable;
- 39 percent reported that they participated because the program was convenient;
- 43 percent of the customers reported they had not been to a Good Guys store before.
Does the program operate within its budget, and are the costs appropriate for a program in the industry that is comparable in size? Are the economics typical of those found in the industry?

Since this program is unique in the fact that the electronics were collected in the retail store, comparisons were made with other electronics collection events held at other locations such as store parking lots, household hazardous waste collection centers and community park and ride areas.


<table>
<thead>
<tr>
<th>Table 5: Costs Per Pound for Collection, Transport and Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Costs</strong></td>
</tr>
<tr>
<td>Collection</td>
</tr>
<tr>
<td>Transportation</td>
</tr>
<tr>
<td>Recycling</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Costs for the Good Guys pilot program averaged $0.27 per pound to collect, transport, and process the material collected. These costs are comparable to those experienced by other similar programs as shown in Table 4. In general, costs for e-waste recycling average approximately $0.25/lb plus collection and transportation, but lower costs can sometimes be negotiated for large quantities or special circumstances. The 2001-2002 EPA pilot project in the mid-Atlantic States experienced costs of $0.25 per pound for collection, transport, and recycling and the electronics collection pilot in Minnesota average $0.17 per pound.

Closer to home in the greater Seattle area, Snohomish County operates an ongoing e-waste take-back program at three transfer stations. In 2004, the agency's costs averaged $0.34 per pound -- $0.09 per pound to operate the collection service and $0.25 per pound for transportation and recycling. These figures demonstrate that the costs experienced by the Good Guys pilot are appropriate and in accordance with cost ranges from other e-scrap collection programs.

Was the program constructed and operated (and generate revenue) as budgeted and expected?

The project kept within the initial budget outlined in the EPA grant proposal. The budget was kept flexible due to the fact that the project budget depended upon the number of retailers and manufacturers that decided to participate and contribute funding.
5. UTILIZATION OF EQUIPMENT/SYSTEMS AND TECHNOLOGIES

Types of equipment being utilized? Detail efficiency and effectiveness of equipment.

The collection project was low-tech and required only pallets, shrink wrap, 28’ and 42’ trailers and a truck capable of holding four pallets of TVs. The TVs were initially going to be stored in gaylord boxes (heavy cardboard boxes with a three cubic yard storage capacity) for pick up by PSC staff in the small truck. However, early on in the project it was clear the gaylord boxes weren’t big enough to accommodate the volume of TVs brought in to the program and they took up too much room in the storage area. At two of the stores where there were large volumes of TVs (Lynnwood and Tukwila) the TVs were subsequently stored in trailers set near the loading dock. The other two stores (Puyallup and Bellevue) continued to use the pick up method whereby a PSC staff person drove a small truck to the store, packaged the TVs on pallets, loaded the truck and transported the TVs to Total Reclaim for processing.
6. WORKER HEALTH AND SAFETY

Describe employee training frequency and safety precautions.

Good Guys store managers, a representative from the government partners and two representatives from PSC conducted training sessions at each of the four stores and all sales staff were required to attend the training before the start of the project. The store manager explained the program and Good Guys’ interest in providing the service to their customers. The government representative provided background information and details about the environmental concerns regarding improper disposal of televisions. The PSC representatives outlined the procedures for packaging the TVs, the pickup schedule and what to do in case of breakage. PSC was to provide kits for spill clean up to each store. Each kit would contain a labeled five-gallon bucket that would be used to contain the glass in the event that a television was broken. The bucket was to be placed with the TVs and the glass would be recycled with the TVs.
7. PUBLIC ACCEPTANCE, APPEARANCE AND AESTHETICS

Discuss overall appearance of the vehicles, maintenance facility and yard. Are facility and vehicles properly maintained for cleanliness? Is the facility a good neighbor?

The Good Guys stores maintained their professional appearance throughout the pilot project. All TVs were stored either in trailers provided by the recyclers or at the back of the store. The public did not see or have access to the storage areas.

Does the program provide public relations measures and public education information?

The program included an extensive public education component. The press releases included information about why electronics should be recycled rather than disposed, the magnitude of the problem, what happens to the recyclable components and how to recycle properly, in addition to the pilot program details.

Paid advertising by Good Guys

On July 8, the program start date, Good Guys ran full page, four-color ads in the following newspapers: the Seattle Times, Seattle P-I, Everett Herald and the Tacoma News Tribune.

On July 18 and July 25, Good Guys ran preprinted inserts in the Seattle Times, Seattle P-I, Everett Herald and the Tacoma News Tribune. At a midpoint in the campaign Good Guys placed a quarter page advertisement in the Saturday edition of the Seattle Times. Good Guys also placed a front cover announcement on their July catalog that was mailed to 90,000 customers in the region.

Good Guys and the government partners set up a web page under the URL www.RecyclemyTV.com. The URL linked to a web page
inside the www.goodguys.com web site where the public was provided with specific information about the recycling program and the discount coupons. Total paid advertising was valued at $74,246.

**Earned Media**

The government partners in King, Snohomish, Pierce Counties, the City of Seattle and City of Tacoma publicized the Good Guys pilot project via a number of tools including press releases, a media event, web sites and flyers. The program received significant local media coverage (earned media). Coverage included at least two radio stories, seven television news stories, ten newspaper articles, and stories in several magazines and online journals. The value of the earned media is estimated to be $138,000.

Customers participating in the pilot heard about the program from the following: (source: on-site customer survey)

- 44% Newspaper (ads and articles)
- 38% TV news story
- 15% Other (could include word of mouth, referrals from solid waste agencies, web, Good Guys catalog)
- 9% Radio news story
- 3% Flyers distributed at transfer stations
- 1% In-store promotion and signage
APPENDIX

Appendix A: Good Guys Newspaper Advertising
Appendix B: Good Guys Discount Coupon
Appendix C: Press Release
Recycle. It’s good for your living room.

Bring your old TV into Good Guys. The environment will thank you, and so will we.

10% OFF COUPON

As a thank you, get a coupon worth 10% off a new TV from sponsoring brands.

Recycling isn’t just good for the environment, it’s good for you, too. Just bring your old TV to any participating Good Guys through August 7th and we’ll make sure it’s disposed of in an environmentally friendly way. Plus, we’ll also give you a coupon worth 10% off a new TV from any of our program sponsors. It’s just another way Good Guys is here to help.

Together, Good Guys and its sponsoring TV manufacturers have made it possible to destroy costs and keep recycling fees to a minimum. Please contribute $10 for standard TVs and $25 for console TVs.

REMEMBER, RECYCLING IS EASY WHEN WE ALL SHARE THE RESPONSIBILITY.

Recycle your old TV at any of these Seattle-area Good Guys:

LYNNWOOD
16001 41st Avenue W.
425.405.0230

BELLEVUE
601 100th Avenue N.E.
425.573.0055

SOUTH HILL
12111 NE 182nd Street
425.771.3000

SOUTH CENTER
330 Andover Park E., #500
253.577.0000
Good Guys Discount Coupon
The environment wishes to THANK YOU

And so does Good Guys.

10% OFF

TVs from our recycling program partners:

SONY  JVC  SAMSUNG  PIONEER  PHILIPS  SHARP

* Offer expires 8/31/04. Offer may not be combined with any other Good Guys offer, including coupons. Valid at four store locations: Lynnwood, Bellevue, South Hill and South Center.
EMBARGOED UNTIL JULY 8, 2004

This is a joint release issued by King County, Snohomish County, Pierce County, the City of Seattle, the City of Tacoma and the Environmental Protection Agency

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Local Governments and Good Guys kick-off nation’s first retail television recycling program

King County, Snohomish County, Pierce County, the City of Seattle, the City of Tacoma and the Environmental Protection Agency are joining with Good Guys and six electronics manufacturers to collect and recycle televisions from July 8th through August 7th 2004. In the nation’s first month-long TV recycling program to be offered by a large TV retailer, area residents can bring their old televisions to Good Guys stores in Bellevue, Tukwila, Lynnwood and Puyallup for recycling.

Northwest Washington residents will generate more than 1 million units of obsolete electronics in 2005, including 463,000 televisions. Televisions contain hazardous materials like lead, cadmium and mercury, which can contaminate air, land and water if not properly disposed. Recycling televisions also reclaims valuable resources like copper and lead for reuse reducing the need for further mining of raw materials.

“Recycling old electronics can help us conserve valuable resources and protect our environment,” said King County Executive Ron Sims. “Disposing properly of the hazardous materials in electronics is crucial to protecting our air, land and water and reusing the valuable resources inside helps conserve resources.”

"This program is a great example of the public and private sectors working together to provide improved services to citizens and customers,” said Snohomish County Executive Aaron Reardon. "Information gained will help retailers and state and local governments plan for on-going sustainable recycling programs for electronic products."

"Pierce County has been working hard to clean up illegal dumpsites and improve the livability of our communities. All too often we are finding old televisions illegally dumped on private properties, along roads, and adjacent to fish habitat. We are pleased to participate in this regional partnership to put old televisions where they belong - in the recycling system,” said Pierce County Executive John Ladenburg.

To help consumers properly dispose of old televisions, local Good Guys stores and participating manufacturers are offering a four-week pilot recycling program that subsidizes the cost of recycling by 50 percent. Beginning July 8th Good Guys stores will
accept televisions made by any manufacturer for a $10 recycling fee, $25 for consoles. Consumers who recycle their televisions will receive a 10 percent discount on the purchase of any television sold by participating manufacturers: JVC, Phillips, Pioneer, Samsung, Sharp and Sony. Recycling televisions through current local government and business programs costs up to $50 per unit.

"The Good Guys are showing themselves as leaders in electronics recycling," said John Iani, Pacific Northwest Administrator for the Environmental Protection Agency. "This partnership is a fantastic step toward reducing toxics in our landfills and giving people another opportunity to choose to be environmental stewards. I know I have an old TV ready to exchange. I hope we see more of these programs in the future."

"This is a great deal for consumers," said Mary Doan, Vice President of Marketing and Advertising for Good Guys. "The recycling fee is very low, and the product discount could more than cover the cost of recycling their old TVs. Consumers can feel good that they are doing something to protect the environment and conserve natural resources."

People can recycle their electronics year-round through the Take It Back Network created by King and Snohomish Counties to help residents and businesses find environmentally sound recyclers. The network is a group of local organizations and businesses that provide reuse and recycling services for all types of electronic products including computers, peripherals, TVs and household electronics. For more information see http://dnr.metrokc.gov/swd/takeitback/index.htm

Local governments and environmental organizations have also brought electronics recycling to the state level as they seek long-term solutions. Earlier this year, the state legislature passed a bill requiring the Department of Ecology to conduct research and develop recommendations for implementing and financing a collection, recycling, and reuse program for electronic products. Reports are due to the legislature in Dec. 2004 and Dec. 2005.

"Ecology will be looking at the results from this pilot project as they craft their recommendations for a long term recycling program," said Representative Mike Cooper, sponsor of the legislation. "It is fortunate that we have the opportunity to test a program like this locally and to get relevant feedback from the public about what they like and don't like. It will make for a much better statewide electronics recycling program."

Consumer questions about the program can be directed to participating Good Guys stores:

- Michael Bizak, (425) 688-0029, 601 106th Avenue NE, Bellevue, WA 98004
- Dave Marriott, (425) 640-5514, 19800 44th Avenue W, Lynnwood, WA 98036
- Gary Siemers, (253) 770-7200, 120 - 31st Avenue SE, Puyallup, WA 98374
- Chuck Bennington, (206) 575-8000, 300 Andover Park West #500, Tukwila, WA 98188

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