

Vermont e-cycles

A program of the  VERMONT Department of Environmental Conservation



2014 E-Cycles Report to the Legislature

Vermont Agency of Natural Resources
Department of Environmental Conservation
Waste Management and Prevention Division

LEGISLATIVE CHARGE:

The Agency of Natural Resources presents this report to satisfy its obligations under 10 V.S.A. § 7559 (chapter 166).

§ 7559. Agency of natural resources responsibilities

The agency of natural resources shall:

- (1) Adopt and administer the standard plan required under section 7552 of this title.
- (2) Establish procedures for:
 - (A) the registration and certifications required under this chapter; and
 - (B) making the registrations and certifications required under this chapter easily available to manufacturers, retailers, and members of the public.
- (3) Collect the data submitted under this chapter.
- (4) Annually review data submitted under this chapter to determine whether any of the variables in the statewide recycling goal should be changed. The agency shall submit recommended changes to the senate and house committees on natural resources and energy.

Subdivision (5) repealed effective February 16, 2014, see note set out below.

- (5) Beginning February 15, 2012, annually report to the senate and house committees on natural resources and energy, the house committee on ways and means, the senate committee on finance, and the senate and house committees on appropriations regarding the implementation of this chapter. Prior to submitting this report, the secretary shall share it with interested persons. For each program year, the report shall provide the total weight of electronic waste recycled. The report shall also summarize the various collection programs used to collect electronic waste; information regarding electronic waste that is being collected by persons outside a plan approved under this chapter; and information about electronic waste, if any, being disposed of in landfills in this state. The report shall include an accounting of the cost of the program, the governor's estimated budget for the program for the next relevant fiscal year, and a summary of the funding sources for the program. The agency may include in its report other information regarding the implementation of this chapter and may recommend additional incentives to increase the rate of recycling.
- (6) Maintain a website that includes the names of manufacturers with current, valid registrations; the manufacturers' brands listed in registrations filed with the agency. The agency shall update the website information within 10 days of receipt of a complete registration.
- (7) In consultation with interested parties, establish guidelines for the environmentally sound management of consumer electronics, including specific requirements for collectors, transporters, and recyclers.
- (8) Identify approved transporters, collectors, and recyclers. (Added 2009, No. 79 (Adj. Sess.), § 2, eff. April 19, 2010.)

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I. EXECUTIVE SUMMARY

As required by Act No. 79 (Adj. Sess. 2010), the Agency of Natural Resources (Agency) implemented an electronic waste collection and recycling program on July 1, 2011. The law provided no-cost electronic device recycling to households, charities, school districts, and businesses that employ 10 or fewer individuals (referred to in the law as “covered entities”). The law was amended in 2012 to include (as a covered entity) anyone bringing in seven or fewer devices. This change allowed others to bring in devices for covered entities on their behalf. Currently, there are 102 permanent locations statewide that offer convenient, year-round collection of computers, monitors, printers, televisions, and computer peripherals. at no charge regardless of their town of residency. This level of convenience has proven to be very effective.

The electronic waste law requires collection locations across the state register with the Agency and report the amount of electronic waste collected and if they collected those devices under the State Standard Plan (State Standard Program), a Manufacturer Opt-Out Independent Plan (Opt-Out Program), or if they are collecting in the state outside of any program.

The Agency developed environmental management standards for Vermont collectors, transporters and recyclers. These standards, known as the “*Procedure for the Environmentally Sound Management of Electronic Devices for Collectors, Transporters, and Recyclers*” (Procedure), were adopted for the first program year and revised again after 2012 legislative changes.

In the second program year, the Agency coordinated safe-lifting trainings for collectors in six regions of the state to focus on the hazards associated with lifting and managing electronic waste. The trainings were conducted by VOSHA’s Project WorkSAFE in collaboration with the Vermont League of Cities and Towns and the Solid Waste District Managers.

The law established a statewide electronic waste recycling performance goal of 5.5 pounds per capita for the first program year based on the U.S. Census Bureau’s 2010 population estimate for the state. The total weight of covered devices collected for the first program year equated to 7.7 pounds per capita, which was well above the program goal. Likewise in the second program year, the amount of electronic waste collected was 4,865,266 pounds (or 7.77 pounds per capita), which far exceeded the statewide goal of 3,754,446 pounds (or 6.0 pounds per capita).

➤ *Legislation in 2012 provided for the change of the E-Cycles Program year from July 1st through June 30th to October 1st through September 30th, which created an interim quarter (July 1, 2012 through October 1, 2012). 1,356,287 pounds of electronic waste were collected for this quarter.*

➤ *The total electronic waste collected in the second program year (October 1, 2012 through September 30, 2013) was 4,865,266 pounds or 7.77 pounds per capita. This exceeded the statewide recycling goal of 6.0 pounds per capita for the second program year and was 45,644 pounds over what was collected in program year 1.*

The funding for the program, as outlined in the law, is provided by manufacturers of computers, monitors, printers, and televisions based on their market share of sales into the state. To date, 87

manufacturers have registered with the program and of those, 26 are exempt because they either sold less than 20 units into the state, or they registered a device that is not currently a covered device under the law.

Legislation required the Agency to develop a State Standard Plan (Plan) that outlined standards for the implementation of a state-run program. The Plan included the requirement for a minimum number of collection locations across the state to provide an adequate level of convenience for Vermont residents dropping off devices covered by the State Standard Program. The Plan (adopted initially on February 4, 2011) was modified May 29, 2012 to reflect legislative changes.

The law also allowed the Agency to contract for the implementation of the State Standard Program and the option for manufacturers to opt-out of participating in the State Standard Program by making application for authorization of a Manufacturer Opt-Out Independent Plan (Opt-out Plan). In 2013, the Agency went out to bid for the implementation of program year three and received five bid proposals. The Agency also authorized a proposal for a Manufacturer Opt-Out Plan that will be operating simultaneously with the State Standard Program for program year three.

Increasing public awareness of the program to help keep collection goals consistent has continued to be an ongoing challenge. Program year three will benefit from increased outreach efforts by two Plans (the State Standard Plan and a new Manufacturer opt-Out Plan).

For the second program year, the chart below identifies pounds of electronic waste collected monthly under the State Standard Program.

**TOTAL *ELECTRONIC WASTE COLLECTED
UNDER THE STATE STANDARD PROGRAM**

OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APR.	MAY	JUNE	JULY	AUG.	SEPT.
462,754	389,009	312,611	280,148	282,887	274,470	390,221	566,044	433,300	517,162	469,638	487,022
PY2 – (OCTOBER 1, 2012 to SEPTEMBER 30, 2013) –4,865,266 POUNDS (Equivalent to an average of 405,439 pounds per month)											

**Electronic Waste: computers, monitors, televisions, printers, and computer peripherals.*

RECOMMENDATIONS

There are no recommended legislative changes for 2014. In evaluating statewide recycling goals for the first two program years, the collection rates remain steady. The Agency continues to monitor collection trends by device and, at present, modifications to the recycling goal outlined in legislation are not warranted. These goals are based on weight collected per-capita. Since the size and weight of electronic devices is decreasing and the use of larger, bulkier televisions is becoming more obsolete, there may be need to modify goals in the future. However, at present the weight and percentages by devices collected remain consistent (as identified in two waste sorts conducted during program year two) and these goals set forth in the law are adequate.

PROGRAM IMPROVEMENTS

The objective for program year three will largely focus on coordinating the efforts of two separate recycling Programs. The structures for the State Standard Program, as well as any Opt-Out Plan, are currently outlined in the State Standard Plan developed by the Agency. The Plan and the Procedure for the Environmentally Sound Management of Electronic Devices (Procedure) are currently being revised to coordinate the efforts statewide for the benefit of the public, and to establish a consistency for each of the Programs.

There were challenges that will serve as a learning experience for the structure the development of the E-cycles program in upcoming years. The distribution of the next Request for Proposal (RFP) for the implementation of the State Standard Program will provide more prescriptive outlines for the expectations of the program in order to streamline the contracting process. The new contractor for program year three and the Agency continue to meet monthly to identify ways to improve the implementation of the State Standard Program.

Vermont continues to coordinate with other states through the Electronic Recycling Coordination Clearinghouse. Coordination among states with electronic programs and EPA is geared to streamlining efforts across state boundaries and striving to establish more unified guidelines for manufacturers affected by state recycling programs. One of the recent challenges for the states is the diminishing options for cathode ray tube (CRT) recycling and the potential for speculative accumulation by recyclers and processors beyond the time limits required by most laws. The Agency will continue to monitor CRT recycling options and work with other states' electronics recycling programs to identify any changes necessary so the Vermont E-Cycles program continues moving forward and keeps up with the rapidly-changing electronics industry.

II. INTRODUCTION

Effective January 1, 2011, Vermont legislation banned electronic devices from landfill disposal. Electronics generated by Vermonters were already being collected by most solid waste districts and municipalities, but the cost for recycling those devices was primarily being borne by residents and/or municipalities. Electronics were being removed from transport loads at landfills, being discovered in dumpsters, illegally dumped, abandoned by tenants, or left on the doorstep of thrift stores or transfer stations.



In July of 2011, an electronic-waste collection and recycling program (State Standard Program) was implemented as a result of the same electronics legislation to offer households, charities, school districts, and businesses that employ 10 or fewer individuals (covered entities) free collection of their own computers, monitors, printers, televisions, and computer peripherals (electronic waste). The legislation provided for no-cost collection; but, only after program implementation began was it discovered that there was no provision for others bringing in items that were found on the side of the road or dropped off on behalf of a covered entity. Legislation in 2012 added the provision that anyone bringing in seven or fewer devices to be presumed to be from a covered entity. This modification in legislation eliminated yet another obstacle and provided an option to further promote the proper management of electronic waste.

The Agency developed the State Standard Plan, which identified the standards for the program including the minimum number of collection locations required by county. The Agency contracted with Northeast Resource Recovery Association (NRRA) for the first program year and renewed the contract for an additional 15 month period that included the second program year.

The management standards for electronic waste in the state were developed by the Agency to provide guidance to collectors, transporters, and recycling facilities for safe handling and storage of electronic devices (Procedure). Revisions were made after legislative changes in 2012 and it was further modified to include a variance to the certification requirements for in-state recyclers who manage less than 250 tons or less of electronic waste per year. This variance allowed a facility who potentially only dismantles and refurbishes devices to not be held to the stringent standards for a facility who primarily recycles. There are no recyclers who have elected to pursue this variance.

The Agency coordinated with other state e-cycling programs through the multi-state organization known as the Electronics Recycling Coordination Clearinghouse (ERCC), which is a forum for coordination and information exchange among the state/local agencies that are implementing electronics recycling laws, as well as all impacted stakeholders (including manufacturers).

Outreach efforts for the second program year included newspaper advertisement, distribution of a PSA for free radio and television advertising, appearances on VPR and Across the Fence, press conferences held at two collection locations, and information provided on the NRRA and Agency web sites. The Agency bolstered these efforts with paid radio and television advertising and by reprinting collection location signs for distribution. The Agency also visited retail locations that sell covered electronic devices to provide outreach materials and guidance to promote the program with the potential sale of new devices. Collection locations continued to be updated regularly with webinars,

conference calls, regional trainings, and e-mail blasts to keep collectors current with any new program information.

As the program progressed, there were increasing concerns by collectors relating to lifting safety for employees when managing electronic waste. The Agency coordinated through the Solid Waste District Manager's meetings to gather information about safety for employees and liability for the facility. The Vermont League of Cities and Towns (VLCT) discussed many of the concerns and provided options for facilities to pursue grant funding to obtain equipment to facilitate lifting safety. The Chittenden Solid Waste Management District applied for such a grant to experiment with different types of boxes (gaylords) without bottoms to see whether placing the gaylords over devices like a sleeve could potentially lower the risk while lifting heavy electronics. This method was compared to the alternative recommended practice, which is to place heavy electronics directly on the pallet (eliminating the Gaylord entirely). Neither method requires lifting the device completely; either method eliminates the need to support the weight in a way that is stressful on the back and arms. Good Point Recycling (GPR), the contractor's recycler, also contributed funding to analyze the purchase of the gaylords as a pilot project to determine if such containers would add value to the program and whether they would create new ergonomic risks for workers unloading the boxes. Collectors and recyclers each noticed logistical costs and benefits in comparing the two methods, but there was no determination that the gaylords provided more benefit than placing items directly on the pallet. In addition, the Agency partnered with Scott Meyer of VOSHA's Project WorkSAFE and set up regional safe-lifting trainings across the state. These hands-on trainings were focused to instruct workers on safe lifting, daily habits to promote healthy backs, guidance on recognizing areas of possible safety hazards, discussion on ideas for change, and many other valuable tools to promote safe lifting. These trainings were conducted and attended regionally at CSWD (Williston), NEKWMD (Lyndonville), GPR (Middlebury), Wincycle (Windsor), WSWMD (Brattleboro), and Resource (Barre) collection locations. Since the trainings were conducted at actual collection facilities, this afforded the opportunity to include hands-on lifting demonstrations conducted by staff of Good Point Recycling.

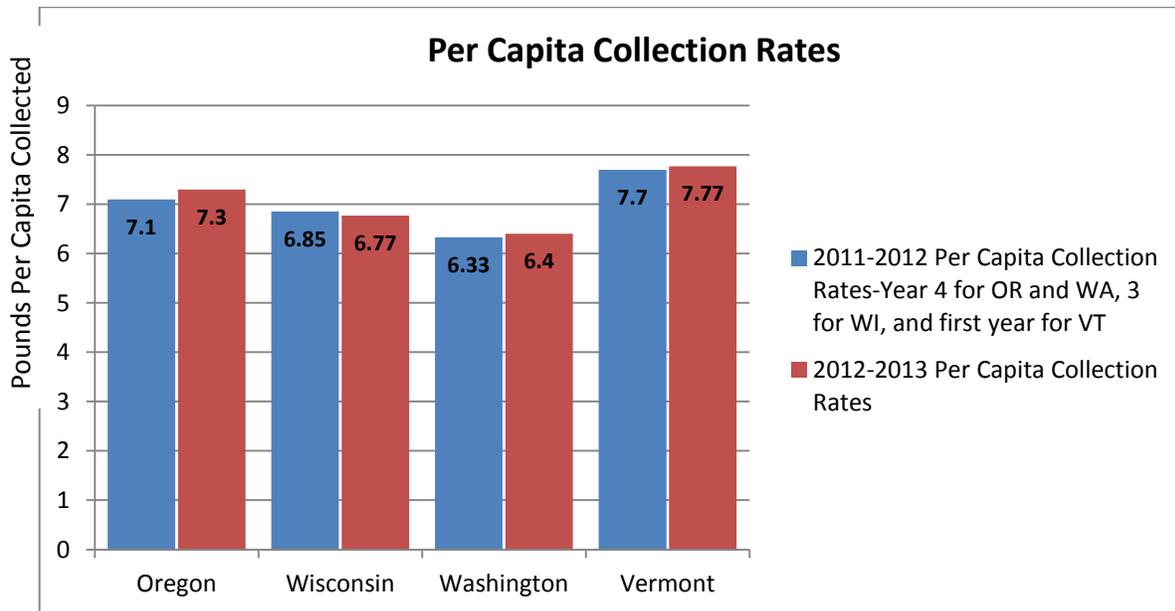
The contract for the implementation of the State Standard Plan for program year three was awarded to Casella Waste Systems for October 1, 2013 to September 30, 2014. Good Point Recycling will be implementing an authorized Manufacturer Opt-Out Independent Plan during program year three as well. Collectors throughout the state have the option to participate in either Program or collect for both Plans. The Agency established general requirements for sharing locations that they believed to be necessary surrounding joint collection.

The upcoming program year (program year three) will offer new possibilities with two collection Plans (State Standard Plan and Opt-Out Plan). New collection locations will likely be added as each Plan has the responsibility to provide locations at specifically identified areas within the state as outlined in the State Standard Plan. Having two Plans (State Standard Plan and Opt-Out Plan) has potential to expand the convenience of electronics recycling statewide and offer more options for Vermonters recycling electronics statewide. Also, both Programs will be providing outreach and education to the public to bring awareness about electronics recycling to Vermonters at no charge. There will be challenges along the way to coordinate these efforts between the Programs and to assist collection locations with the registration and reporting based which program or programs they choose to participate. The Agency will make every effort to continue to coordinate with participants to create an overall collaborative effort to maintain convenient electronic collection services for Vermont citizens.

III. STATE STANDARD PROGRAM IMPLEMENTATION

a. E-Waste Collected– Program Goal

The law established a statewide electronic waste recycling performance goal of 5.5 pounds per capita for the first program year based on the U.S. Census Bureau’s 2010 population estimate for the state (625,741). The total weight collected of covered devices for the first program year equated to 7.7 pounds per capita, which was well above the program goal. The second program year goal of 6.0 pounds per capita utilized the same population census estimates for a program goal of 3,754,446 pounds collected. The total weight collected for covered devices for the second program year, however, was **4,865,266** which is approximately 7.77 pounds per capita.



Per capita collection rates listed above were chosen from states that were similar in covered entities and covered devices (see chart below). Vermont’s law most closely matches Oregon’s electronics recycling law. Oregon’s per-capita numbers (above) were corrected from Vermont’s previous 2013 annual report to include state-wide collection totals for all three of Oregon’s collection programs. Oregon later changed its law to cover anyone bringing in seven or fewer devices to be added as a covered entity. Vermont made the same change at the end first program year.

State	Covered Entity	Covered Devices
Oregon	Households, small business (≤10 employees), non profit (≤10), any person dropping off 7 or fewer devices.	TVs, computer monitors, laptops, desktops, media tablets.
Wisconsin	Households and K-12 public schools.	TVs, computer monitors, laptops, desktops, printers, computers, peripherals, fax machines, DVD, VCR.
Washington	Households, small governments, small businesses (≤50 employees), school districts & charities.	TVs, computer monitors, laptops, desktops, media tablets, E-readers.
Vermont	Households, small business (≤10 employees), charities, school districts, any person dropping off 7 or fewer devices.	TVs, computer monitors, laptops, desktops, printers, computers, peripherals.

The Agency contracted for the implementation of the State Standard Plan and there were no Manufacturer Opt-Out Independent Plans during the second program year. Manufacturers of covered electronic devices can choose to participate in the State Standard Plan or opt-out of participation in the State Plan by making application for authorization of a Manufacturer Opt-Out Independent Plan.

Collection locations participating under the State Standard Plan are required to collect all banned electronic devices; of those banned devices, computers, monitors, televisions, printers and computer peripherals (devices covered by the program) were to be collected at no charge to covered entities. In addition to the 4,865,266 pounds of covered electronics paid for under the State Standard Program), collection locations collected 532,864 pounds of other banned electronic devices. The chart below represents collection data for collection of all types of electronic waste for the period of 2009 to present. The data for 2009 and 2010 were collected from the 2009/2010 Solid Waste Diversion and Disposal Reports from solid waste districts. In July of 2011, the E-Cycles program was implemented which increased collection rates overall by approximately 222% compared to the two previous collection years. The collection numbers for the second program year of the State Standard Program remained consistent with a slight increase in the collected weight of covered electronics and a slight decrease in the amount of electronics collected that are banned from landfill disposal but not paid for by the program.



The State Standard Program allows covered entities from any location to drop off electronic waste at any one of the 102 collection locations across the state regardless of their place of residence. The chart below identifies the total pounds of computers, monitors, printers, computer peripherals and televisions collected under the program by county. It also identifies the number of locations within each county, the number of events held during program year two and the rate per capita per county.

TOTAL ELECTRONIC DEVICES BY COUNTY
STATE STANDARD PROGRAM
Program Year Two (October 1, 2012 to September 30, 2013)

County and % of total Population (2013 updates)		Pounds of CED Collected By the State Standard Plan	Collection Locations by County In the State Plan	Events	Rate Per capita CED (pounds)
Addison	5.9%	337,438	3	2	9.2
Bennington	5.9%	293,473	5	3	7.9
Caledonia	5.0%	250,764	8	2	8.0
Chittenden	25.0%	1,395,759	14	2	8.9
Essex	1.0%	41,722	5	0	6.6
Franklin	7.6%	211,518	3	1	4.45
Grand Isle	1.1%	34,459	2	0	5.0
Lamoille	3.9%	239,443	6	0	9.8
Orange	4.6%	136,028	4	6	4.7
Orleans	4.4%	136,725	12	0	5.0
Rutland	9.9%	418,543	17	2	6.8
Washington	9.5%	475,699	7	1	8.0
Windham	7.1%	360,135	6	5	8.1
Windsor	9.1%	533,560	10	2	9.4
TOTALS		4,865,266 POUNDS	102	26	7.77

(CED) Covered Electronic Devices: Computers, monitors, televisions, printers, and computer peripherals.

b. Electronic Collections and Events

The second program year saw an increase in registered locations for a total of 102 collection sites operating under the State Standard Program. Along with permanent locations, 26 stand-alone collection events were held under the State Standard Program. In addition, seven retail locations, chose to collect electronic waste outside of the State Standard Program, many of which were also funded by manufacturers of electronics. Some manufacturers also fund their own mail-back and take-back programs, in addition to their obligations under the State Standard Program.

Of the 26 collection events held during program year two, 12 were conducted as fund-raising events at schools. Many of these events are duplicated each year and have become standard events in some communities. The consistency of these events adds to the variety of convenient options for drop-off of electronic waste for Vermonters.

The Agency, with input from the contractor, developed guidance documents to streamline the process for event registration. Collection events continue to be held throughout the state to bolster collection services primarily in rural areas.

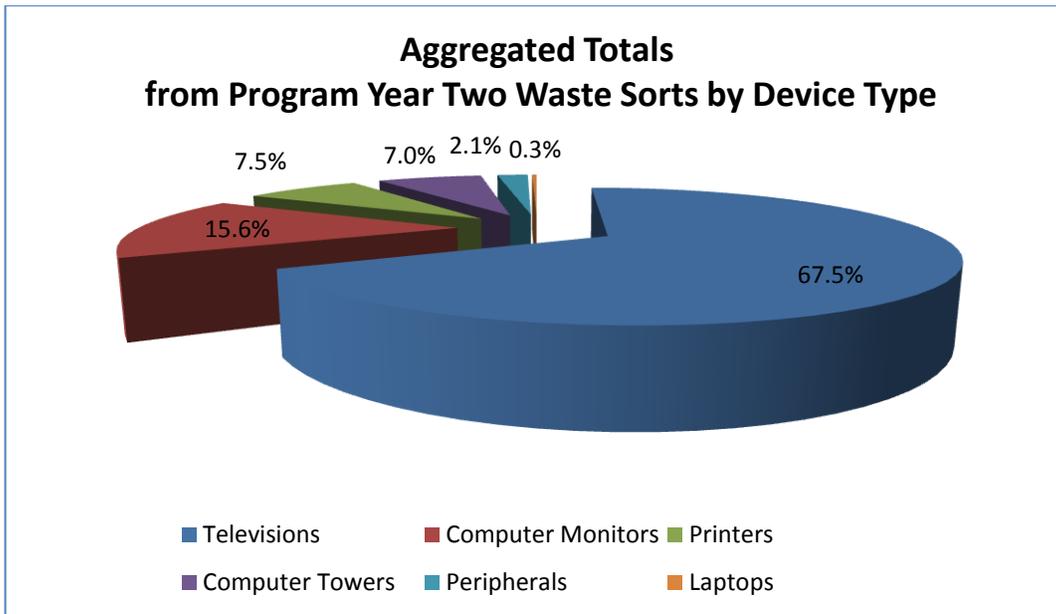
c. Waste Sorts

The second program year, two waste sorts were conducted to assess the approximate amount of each type of electronic devices that were being collected and to determine if there are any trends of some device collection over another reducing or increasing.

The following table represents two separate waste sorts with two to three facilities being randomly selected from a consolidated load brought to the recycling facility. The materials were sorted and weighed by category.

The two waste sorts conducted the first program year identified that approximately 66% of the materials collected were televisions followed by computer monitors at approximately 16%. The second program year shifted slightly with televisions at 67.5% with computer monitors at 15.6%.

The chart on the next page shows the breakdown by device during two waste sorts conducted for program year two during September of 2012 and March of 2013.



Waste sorts for program year three under the State Standard Program will provide an additional level of detail which will identify percentages of televisions and computer monitors based on whether they are CRT or flat panel displays. In addition, data being compiled the third program year will provide actual totals by device and location collected throughout the program year. These data will provide a more comprehensive picture for program evaluation for collection trends of CRT devices in the state.

d. Registration and Reporting

The Agency provides on-line registration for collectors, transporters, recyclers of electronic waste as well as manufacturers of covered electronic devices in order for them to conveniently meet their registration requirements.

During the registration process, collectors, transporters, and recyclers certify compliance with the Procedure for Environmentally Sound Management of Electronic Devices (Procedure) and report whether they have a procedure in place in the event that an electronic device should break. A list of collection facilities, along with their location, contact information, and hours of location is available to the public via the program website. This list is updated in real-time from the registration database.

Eighty-seven manufacturers are currently registered; of that, 26 are exempt because they sold less than 20 units (devices) into the state or, they registered a device that is not currently a covered device under the law. The Agency posts registered manufacturers on its website. Retailers can access on-line information about manufacturers to determine if products are properly registered for sale in Vermont.

The Agency is continuing to use an online reporting mechanism for collectors, transporters, and recyclers to fulfill the requirements for E-Cycles reporting.

e. Contractor Implementation

The Agency extended the contract for administration of the State Standard Plan, implemented by Northeast Resource Recovery Association (NRRA), for program year two. NRRA worked closely with collectors, transporters, and recyclers to provide on-site inspections, regional trainings, and personal guidance to all operators.

Outreach and education efforts continued throughout the year with newspaper advertisement, press conferences, specific outreach to schools including audio and video PSAs with various radio and television stations.

The Agency bolstered the outreach efforts of NRRA the second program year with paid radio and television advertising plus a reprint of all the collection location signage and brochures to promote the program.

IV. PROGRAM COSTS

The contract to implement the State Standard Plan for program year two provided a fixed amount for each pound of covered electronics collected and set amounts for the satisfactory performance of fixed deliverables. These deliverables included, but were not limited to: coordinating collection locations, conducting outreach, training, and accounting. For the second program year (October 1, 2012 to September 30, 2013) the cost was 28 cents per pound for the collection, transport, and recycling of electronic waste, plus \$162,000 for all other deliverables, a per-pound equivalence of approximately 3.3 cents for the contractor’s performance based milestone payments. This results in a total implementation cost of approximately 31.3 cents per pound for the second program year, compared to a total cost of approximately 32 cents per pound for program year one

Program Year Two: October 1, 2012 to September 30, 2013				
DEC Program Administrative Fees	Collection, transport, and recycling fees	Performance milestone fees (per lb. equiv.)	Total Implementation Fees (per lb. equiv.)	
Actual	Actual	Actual	Actual	Estimated
203,547	\$0.28/lb	\$0.033/lb	\$0.31.3/lb	\$0.32/lb

The Agency’s contract with NRRRA established overall program costs for the manufacturer. These costs included administrative costs for the implementation of the program (State Standard Plan); collection, transportation, and recycling costs associated with the electronic waste collected; costs for outreach and education to the general public; and training and payment to the collection sites for their services. NRRRA contracted with the recycler for payment of services who, in turn, reimbursed collection locations for the collection of electronic waste.

Manufacturers fund the costs for the collection and recycling of electronic waste by participating in the State Standard Plan or a manufacturers’ Opt-Out Plan. Manufacturers, through their annual registration, also fund the Agency’s administrative oversight of all of the Plans (State Standard Plan or any Manufacturer Opt-Out Plan based on their percentage of market share sales of new covered electronic devices into the state. During program year two, the Agency also provided additional outreach to that which was contracted for under the State Standard Plan. Program-year three provides adequate outreach and education efforts that will be conducted by all Plans and the Agency will provide signage to the collection locations to maintain the general message at each collection site regardless of what Plan it is participating in.

The Agency, under §7560(b), must determine if the cost of the program exceeds the average cost of collection incurred by similar electronic waste collection and recycling programs in other states.

A report with comparison data (outlined in the table below) was compiled with 2009 data through an informal survey conducted for the Maine Department of Environmental Protection by the Consumer Electronics Association (CEA).The survey, based on 2009 data, is the only survey of its kind that has been completed that identifies the average costs per pound for collection, transportation, and recycling of electronics in states with electronic programs.

E-Cycles Program Launch Date	STATE	*Average Price Per Pound Paid by OEMs
2004	Maine	\$0.33
2007	Minnesota	\$0.16
2007	Oregon	\$0.26
2008	Rhode Island	\$0.35
2007, 2008, 2008	TX, OK, VA	\$0.25
2006	Washington	\$0.26

*Based on 2009 data.

The Agency contacted Oregon and Washington to analyze program costs in these two states as Vermont patterned its law after legislation adopted in these states. Oregon’s 2010 annual report identified “Total operational and administrative expenses for the SCP (state-run program) were 23 cents per pound for the year, a savings of a penny per pound over last year. Of this amount, administrative costs were...an average of only 2 cents per pound.”In its 2012 report, Oregon identified their costs for collection, transport, recycling and administrative costs were lowered to 20 cents per pound. Of the three programs in Oregon, two are manufacturer opt-out programs. Washington verbally identified that it had collected 43.5 million pounds at 26 cents per pound with additional for administrative costs.

It is difficult to evaluate state program recycling cost comparisons on a cents-per-pound basis because of the differences in state electronic waste laws, the maturity of the program, the number and of programs operating with a state, and collection program design. In addition, there are other contributing factors such as population density, number of collection locations, transport distances, the types of electronics included in a program, and whether electronics collected under a given program provide positive or negative value to the recycling costs.