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Texas Recycles Computers Program

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Prepared by
Small Business and Environmental Assistance Division

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Contents

| | |
|---|-----------|
| Overview | 2 |
| Requirements..... | 2 |
| Program Outreach | 4 |
| Results from Manufacturers' Annual Reports | 4 |
| Future of the Program | 13 |

Overview

The Texas Commission on Environmental Quality supports market development for recycling and plays an important role in assisting Texans with establishing recycling programs. The TCEQ has programs that provide public education, online resources, and assistance for industries interested in increasing recycling at their facilities. Through compliance and technical assistance, the TCEQ provides guidance to the recycling community. Multiple programs support and encourage recycling, including the agency's Take Care of Texas, pollution prevention technical assistance, and solid waste grants programs. Additional programs support recycling markets directly, such as the Resource Exchange Network for Eliminating Waste ([RENEW](#)¹). Other recycling programs target specific materials, such as recycled newsprint, used oil, and computer equipment.

The Texas Legislature established the Texas Recycles Computers Program through House Bill 2714 in the 80th Legislative Session. Under the program, manufacturers offering to sell new computer equipment in or into Texas are required to provide a free and convenient program for collecting and recycling home business and personal computer equipment. As part of the management of this program, the TCEQ continues to inform and educate the general public and maintain Web pages to provide compliance and technical assistance to recyclers, consumers, retailers, and manufacturers.

Under the Texas Recycles Computers Program, computer equipment is defined as a desktop or notebook computer, including a computer monitor or other display device that does not contain a tuner (30 Tex. Admin. Code (TAC) [§328.135](#)²). The definition also includes the accompanying keyboard and mouse made by the same manufacturer.

The Texas Recycles Computers Program is not the only outlet for computer-equipment recycling in Texas. Many other resources are available for consumers who wish to recycle their used electronics, including computer equipment. Municipalities, local nonprofit groups, and community-oriented businesses often coordinate collection events for electronics recycling in their areas. Charity groups, such as Goodwill and The Salvation Army, may take computer donations for refurbishing and resale or recycling. The Texas Recycles Computers Program provides one way, among others, that consumers can recycle their computers in Texas.

Requirements

The Texas Recycles Computers Program requires that each of the parties involved be responsible for different aspects of the program. Computer-equipment

¹ Available at www.tceq.texas.gov/p2/recycle/renew/renew.html.

² Available at

[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=328&rl=135](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=328&rl=135).

manufacturers, retailers, recyclers, consumers, and state agencies have requirements under the law.

Each computer-equipment manufacturer is responsible for collecting and recycling its own brand(s) of computer equipment. A manufacturer's program must be convenient for consumers and free at the time of recycling. The program must cover all of the computer brands made by the manufacturer, both in use and no longer in use. The program applies to computer equipment that is purchased primarily for personal or home-business use—regardless of when it was purchased. Additionally, manufacturers are responsible for submitting an annual recycling report to the commission by Jan. 31 of each year, reporting the weight of the covered computer equipment collected, recycled, and reused during the preceding calendar year. The first year of the program was 2009, and the first reports were due Jan. 31, 2010.

Retailers may not sell or offer to sell new computer equipment in Texas unless the equipment is labeled with the manufacturer's brand(s) and the manufacturer is included on the TCEQ's online list of manufacturers. This list is available at <www.TexasRecyclesComputers.org>. This requirement applies to online and in-store sales.

Consumers are responsible for any information, in any form, that is left on the consumer's computer equipment.

Computer-equipment recyclers are required to make efforts to reuse or refurbish all computer equipment they collect. They must then recycle what is economically feasible to recycle in an environmentally sound manner (30 TAC §[328.149](#)³). Only after reusing, refurbishing, or recycling what they reasonably can, may recyclers properly dispose of any remaining materials.

Texas state agencies must meet certain requirements under the Texas Recycles Computers Program. State agencies must give a purchasing preference to manufacturers who have a program to recycle other manufacturers' computer equipment. State agencies also must ensure that any contractor for computer-equipment leases or purchases is in compliance with the program. The Department of Information Resources adopted [rules](#)⁴ to implement this requirement. The TCEQ must conduct consumer outreach and education on collecting, recycling, and reusing computer equipment; maintain a website providing information about computer-equipment reuse and recycling and an online list of manufacturers; and issue an annual report to the Texas Legislature no later than March 1. The TCEQ must also, in cooperation with the attorney general's office, enforce the law for this program.

³ Available at

<[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=328&rl=149](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=328&rl=149)>.

⁴ Available at

<[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.ViewTAC?tac_view=4&ti=1&pt=10&ch=217](http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=4&ti=1&pt=10&ch=217)>.

Program Outreach

Outreach under the Texas Recycles Computers Program has evolved since implementation. Historically the TCEQ launched its initial outreach targeting manufacturers and retailers through e-mail, phone calls, and an online workshop. Continued outreach expanded to include recyclers and consumers, broadening knowledge of the new program and providing resources for all responsible parties. The resources include recycler compliance tools such as a [checklist](#)⁵ to help certain recyclers address relevant TCEQ regulations and a [Web page](#)⁶ that explains TCEQ regulations for electronics recyclers. Manufacturers also can use these resources as tools to help assure them that the recyclers they select are in compliance with Texas regulations. Additionally, with market expansion of equipment such as tablet computers, the TCEQ routinely monitors for new manufacturers in order to provide continued compliance assistance resources and encourage electronics recycling for all responsible parties.

Consumer outreach includes steps to increase public awareness of the Texas Recycles Computers Program. Since the program's inception, the TCEQ has used multiple outlets to educate consumers, municipalities, and nonprofit groups about the program. In 2012, upon implementation of the Texas Recycles TVs Program, the TCEQ focused on unified outreach for both programs through the *Plug Into Electronics Recycling* (GI-423) branding. To date, statewide outreach for both these programs or the Texas Recycles Computers Program specifically include distribution of over 300,000 brochures and promotion of the program at staff-attended events to more than 250,000 people, radio public service announcements in 16 regions. Promotion of these programs has also resulted in more than 15 feature articles and coverage in newspapers, magazine articles, or agency Web pages and publications including the TCEQ's *Take Care of Texas News You Can Use* newsletter, and *The Advocate* newsletter, a quarterly with circulation of more than 11,000 subscribers. Under current outreach the central focus of joint consumer electronics recycling programs remains on public education and outreach.

Results from Manufacturers' Annual Reports

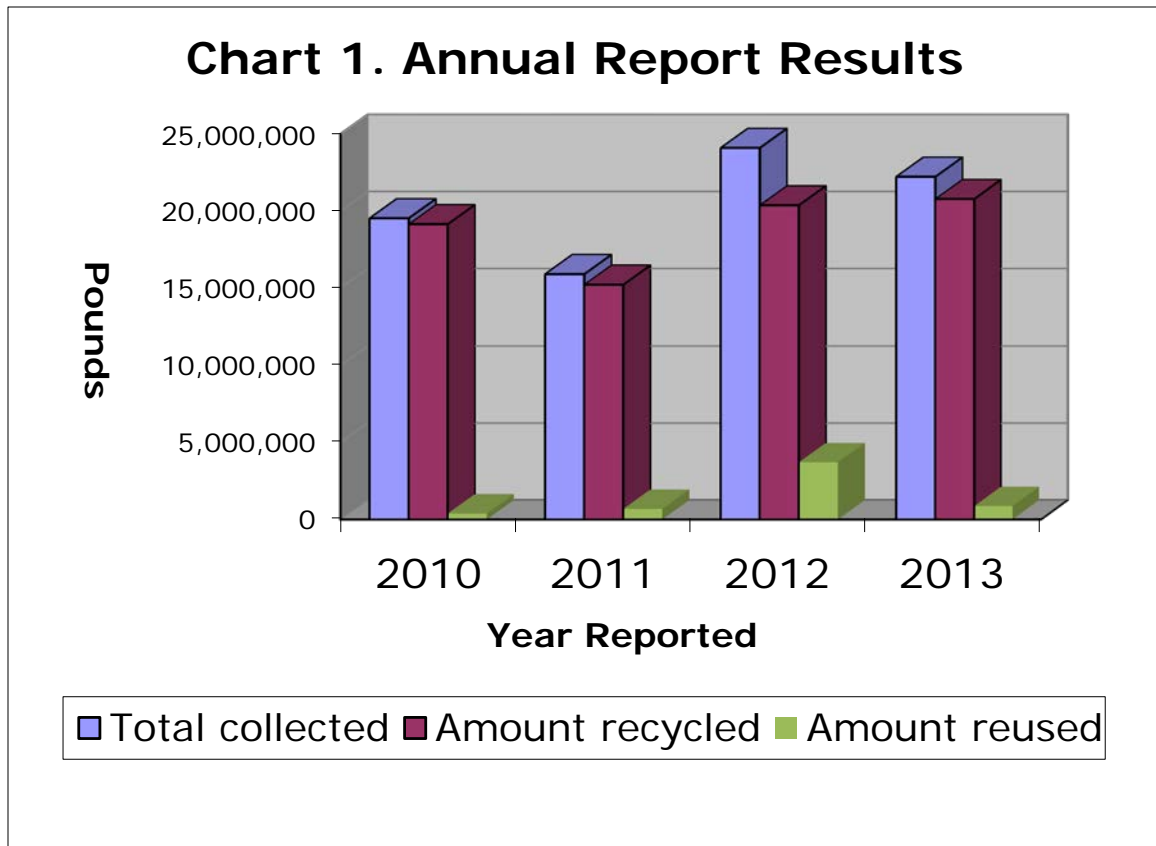
In reporting year 2013, the total combined weight of computer equipment collected was 22,220,731. The total amount recycled was 20,772,077 and the total amount reused was 869,702. Comparatively, the total weight of computer equipment collected in 2012 was 24,093,143 pounds. Of that collected weight, 20,367,271 pounds were recycled and 3,716,242 pounds were reused.

In 2013, one manufacturer who failed to report was removed from the commission's list. The Agency will continue to provide assistance to this manufacturer who may be added back to the TCEQ's online list once the manufacturer requirements have been met.

⁵ Available at <www.tceq.texas.gov/assets/public/assistance/sblga/checklists/e-Recycle.pdf>.

⁶ Available at <www.tceq.texas.gov/assistance/industry/e-recycling>.

In addition to recycling covered computer equipment, many computer manufacturers also voluntarily collect televisions and other electronics for recycling. The TCEQ allowed computer manufacturers to report other electronics collected, not just the computer equipment covered under the program. For 2013, manufacturers reported collecting 1,926,542 pounds of additional, noncovered electronics. The number was lower than 2012 voluntary collection amounts of 19,739,371 pounds. The difference in additional weight collected may be due in part to the first year reporting by manufacturers under the Texas Recycles Televisions program. Any numbers reported voluntarily by a manufacturer which included televisions also reported under the Texas Recycles Televisions program were not included in this report. Historical data for the most current 4 years of reporting is reflected in Chart 1 below.



Texans have many opportunities to recycle their computer equipment and other electronics outside of the Texas Recycles Computers Program. Collection events coordinated by municipalities, local nonprofit groups, private recyclers, and community-oriented businesses are additional ways Texans can recycle their computers. Since some of the recyclers do not report to the TCEQ, the agency's reported number does not fully represent recycling activity in Texas.

In all years, some reports listed zero pounds of computer equipment collected, reused, or recycled. A common reason for a manufacturer to report collecting no computer equipment is because the manufacturer is a small business with a clientele limited to surrounding homeowners, who do not often buy new equipment. Additionally, in situations where manufacturers' customers are primarily businesses, and personal

equipment is rarely sold, little or no personal or home business computer equipment was returned for recycling or reuse.

As discussed in previous years, with the rapid advancement of technology electronics continue to become more compact, which we have proposed could lead to manufacturers reporting lower total weight of materials collected. A report published in July 2011 on behalf of the Consumer Electronics Association (CEA) detailed this manufacturing trend between 2004 and 2010 from cathode ray tubes (CRT) to lighter flat panel technology for televisions and computer monitors.⁷

Table 1 lists amounts reported by each manufacturer for the 2013 calendar year. Some numbers reported by manufacturers as recycled or reused may have been collected in a previous year.

⁷ Available at <<http://apps.ce.org/documents/PikeCEAFinal.pdf>>.

Table 1. 2013 Manufacturers' Reported Amounts (shown in lbs)

| Manufacturer | Brands | Collected | Recycled | Reused |
|------------------------------|---|------------------|-----------------|---------------|
| @Xi Computer Corp. | Xi Computer, @Xi Computer | 0 | 0 | 0 |
| Acer America Corporation | Acer, Acer View, Aspire, eMachines, Gateway | 1,383,317 | 1,383,317 | 0 |
| Advanced PC Products, Inc. | Advanced PC, Advanced PC Quasar | 50 | 50 | 0 |
| AG Neovo | AG Neovo | 0 | 0 | 0 |
| Altex Electronics Ltd. | Altex Electronics | 56,224 | 54,038 | 2,186 |
| AMAX Engineering Corporation | AMAX | 0 | 0 | 0 |
| Amazon Fulfillment Services | Kindle Fire | 1,386 | 1,386 | 0 |
| Apple Inc. | Apple, Next | 4,413,942 | 4,413,942 | 0 |
| ASUS Computer International | ASUS | 24.5 | 24.5 | 0 |
| Azpen Innovation, Inc. | Azpen | 500 | 0 | 500 |
| Barnes & Noble | Barnes & Noble (Nook) | 0 | 0 | 0 |
| Bass Computers, Inc. | Bass Computers, Inc. | 1,111 | 1,111 | 0 |
| BenQ America Corp. | BenQ | 0 | 0 | 0 |
| Best Buy | Dynex, Insignia | 919,782 | 798,837 | 120,946 |
| Bits Technical Corporation | Bits Technical Corporation | 2,700 | 2,700 | 0 |
| Computer Shak, Inc. | Computer Shak, Inc. | 1,200 | 200 | 1,000 |
| Craig Electronics, Inc. | Craig | 0 | 0 | 0 |
| Curtis International, Ltd. | Klu, Proscan | 0 | 0 | 0 |

| Manufacturer | Brands | Collected | Recycled | Reused |
|--------------------------------------|---|------------------|-----------------|---------------|
| Cyberpower PC | Cyberpower | 0 | 0 | 0 |
| D2 Pad | D2 | 0 | 0 | 0 |
| David Anderson Consulting | David Anderson Consulting | 181 | 426 | 5 |
| Dell Inc. | Alienware, Dell | 5,440,164 | 4,291,808 | 569,323 |
| DoubleSight Displays | DoubleSight | 108 | 108 | 0 |
| DPI, Inc. | Zeki | 0 | 0 | 0 |
| DRS Tactical Systems Inc. | ARMOR C12, ARMOR X10, Hammerhead | 0 | 0 | 0 |
| ECP Computers & More | ECP | 0 | 0 | 0 |
| Elo Touch Solutions, Inc | Elo | 0 | 0 | 0 |
| eMatic | eMatic | 6.54 | 0 | 6.54 |
| Envision Peripherals, Inc. (EPI) | AOC, Envision | 0 | 0 | 0 |
| Equus Computer Systems | Mirus, Nobilis, Nobleview, VitaMobility | 0 | 0 | 0 |
| Fuhu, Inc | Nabi | 0 | 0 | 0 |
| Fujitsu Computer Systems Corporation | Fujitsu, Fujitsu-Siemens | 16.4 | 16.4 | 0 |
| GammaTech Computer Corp. | Durabook, Slimnote | 0 | 0 | 0 |
| Google, Inc. | Chromebook | 0 | 0 | 0 |
| Hannspree North America, Inc. | Hanns-G, Hannspree, I-Inc | 0 | 0 | 0 |

| Manufacturer | Brands | Collected | Recycled | Reused |
|---------------------------------|--|------------------|-----------------|---------------|
| Hewlett Packard Company | Apollo Computer, Compaq, Digital Equipment (DBC), Hewlett-Packard, VooDoo PC | 2,644,431 | 2,644,431 | 0 |
| Hisense USA | Hisense | 0 | 0 | 0 |
| Howard Technology Solutions | Howard | 0 | 0 | 0 |
| HTC Corporation | HTC | 0 | 0 | 0 |
| Hyundai IT America Corp | Hyundai, Hyundai Imagequest | 0 | 0 | 0 |
| Idolian Mobile, Inc. | Idolian, Studio | 50 | 0 | 50 |
| Infotel Distributors, Inc. | Systemax, Ultra | 0 | 0 | 0 |
| International Business Machines | IBM | 287 | 287 | 0 |
| IPSG | Powerspec, Winbook | 17,365 | 17,365 | 0 |
| Kobo, Inc. | Kobo | 6.92 | 6.92 | 0 |
| Komputer+ Peripherals | Komputer+ | 13,413 | 13,413 | 0 |
| LeapFrog Enterprises, Inc. | LeapFrog | 41.31 | 41.31 | 0 |
| Lenovo (United States) Inc. | Lenovo | 14 | 14 | 0 |
| LG Electronics USA, Inc. | Goldstar, LG, Zenith | 1,867,697 | 1,867,697 | 0 |
| M&A Technology | M&A Technology, Manda | 340,186 | 165,585 | 174,601 |
| Magic Box Solutions | Magic Box Solutions | 0 | 0 | 0 |
| Maverick Computer Services | Maverick Computer Services | 0 | 0 | 0 |

| Manufacturer | Brands | Collected | Recycled | Reused |
|--|---|------------------|-----------------|---------------|
| Microsoft Corporation | Microsoft | 377,048.5 | 376,454.5 | 594 |
| Midwest Trading Group | Crystal View, Sound Logic | 0 | 0 | 0 |
| Motion Computing, Inc. | Motion | 0 | 0 | 0 |
| Motorola Mobility | Motorola | 0 | 0 | 0 |
| MSI Computer Corp. | MSI | 0 | 0 | 0 |
| Naxa Electronics | Naxa | 0 | 0 | 0 |
| NEC Display Solutions of America, Inc. | Mitsubishi DiamondPoint, Mitsubishi DiamondPro, NEC, NEC AccuSync, NEC MultiSync, NEC Multeos | 500 | 500 | 0 |
| Nokia, Inc. | Nokia Booklet3G | 0 | 0 | 0 |
| NorTex | NorTex | 0 | 0 | 0 |
| Oracle | Sun | 0 | 0 | 0 |
| Oregon Scientific, Inc. | Meep | 170.4 | 0 | 0 |
| Panasonic Corp of North America | Panasonic | 1,200 | 1,200 | 0 |
| Paxson Enterprises, Inc. | Paxson Enterprises, Inc. | 0 | 0 | 0 |
| PC & Cable | PC & Cable | 0 | 0 | 0 |
| Phantom Technologies | iBoss | 0 | 0 | 0 |
| Planar Systems, Inc. | Planar | 0 | 0 | 0 |
| PLR IP Holdings, LLC | Polaroid | 300 | 300 | 0 |
| Premio, Inc. | Premio | 0 | 0 | 0 |

| Manufacturer | Brands | Collected | Recycled | Reused |
|---|--|------------------|-----------------|---------------|
| RCS Technologies, Inc. | RCS Technologies | 50 | 50 | 0 |
| Research In Motion | BlackBerry PlayBook | 0 | 0 | 0 |
| Rullingnet Corp. | Vinci | 0 | 0 | 0 |
| Samsung Electronics Co. | Samsung, Samtron, Syncmaster | 3,342,279 | 3,342,279 | 0 |
| Seneca Data Distributors | Nexlink | 0 | 0 | 0 |
| Shuttle Computer Group, Inc. | Shuttle Computer Group, Inc. | 0 | 0 | 0 |
| Skytex Technology, Inc. | Skytab, Imagine | 0 | 0 | 0 |
| Sony Electronics Inc. | Sony | 1,381,618 | 1,381,618 | 0 |
| Techno Source USA | Kurio | 0 | 0 | 0 |
| Toshiba America Information Systems, Inc. | Toshiba | 1,103 | 1,103 | 0 |
| University Computer Stores | University Computer Store | 0 | 0 | 0 |
| V7 | V7 | 0 | 0 | 0 |
| Velocity Micro | Velocity Micro | 0 | 0 | 0 |
| VideoTex | VideoTex Systems | 0 | 0 | 0 |
| ViewSonic | Cybervision, Nokia (CRT & LCD), Optiquest, Utobia, ViewSonic | 124 | 124 | 0 |
| Visual Land, Inc. | Visual Land | 0 | 0 | 0 |
| Vizio, Inc. | Vizio | 0 | 0 | 0 |

| Manufacturer | Brands | Collected | Recycled | Reused |
|-------------------------|---------------------|------------------|-----------------|---------------|
| Wacom Technologies | Wacom | 0 | 0 | 0 |
| Wakstar, LLC | Wakstar | 0 | 0 | 0 |
| Westgate Computers | Westgate Computers | 713 | 713 | 0 |
| Wintec Industries, Inc. | FileMate | 0 | 0 | 0 |
| Workhorse Computers | Workhorse | 225 | 35 | 190 |
| Wyse Technology | Wyse Technology | 10,000 | 10,000 | 0 |
| ZT Systems | ZT, ZT Systems | 0 | 0 | 0 |
| Zydeco Technologies | Zydeco Technologies | 1,196 | 896 | 300 |

Future of the Program

The TCEQ will continue direct contact with local governments and consumers to emphasize the benefits of electronics recycling through the Texas Recycles Computers and Texas Recycles TVs programs. The TCEQ will also continue outreach and compliance assistance for consumers, recyclers, manufacturers, and retailers through presentations, brochure distribution, and resource development. Through these efforts in the coming years, the Texas Recycles Computers Program expects to offer additional compliance assistance as new program participants are identified.

Future opportunities for promoting the electronics recycling programs will be explored as the Texas Recycles TVs program matures and the TCEQ can assess future potential of joint outreach. Moving forward, the TCEQ will continue to seek cooperation with other states' recycling programs and with TV and computer manufacturers to offer the most up-to-date recycling information to Texans.