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Program Report on Texas Recycles Computers and Texas Recycles Televisions

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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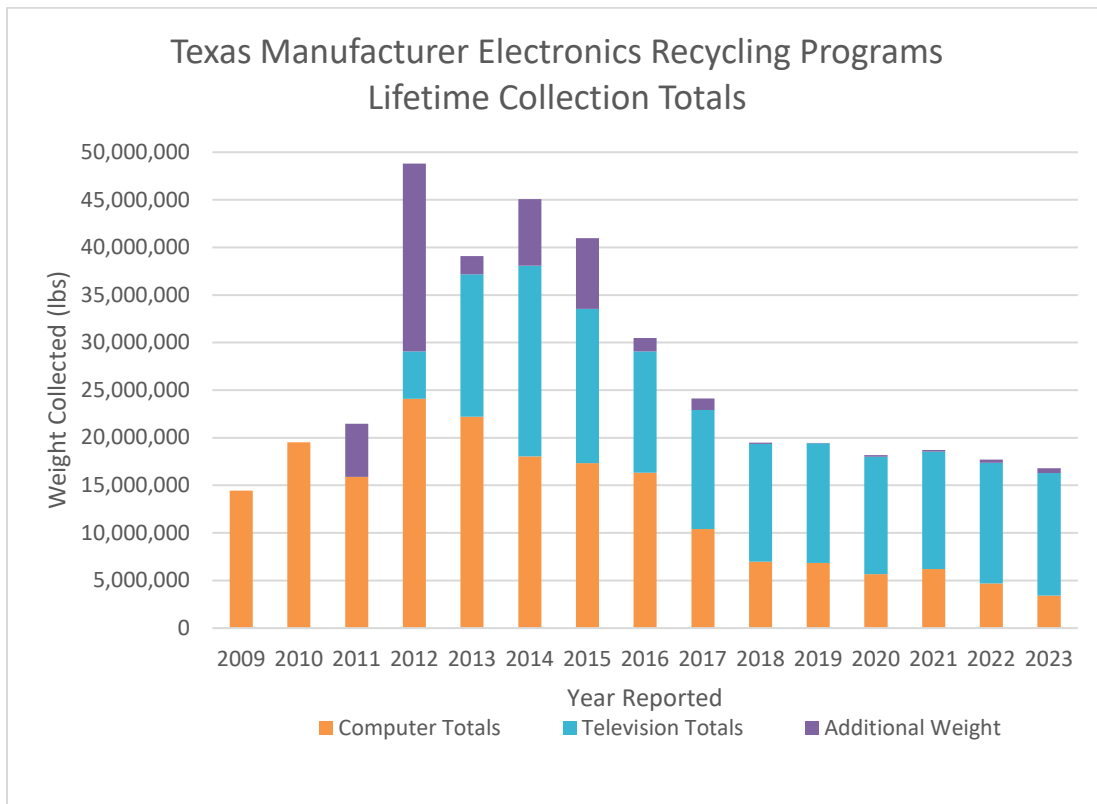
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Results from Manufacturers' Annual Reports

The Texas Recycles Computers and Texas Recycles TVs programs have been required to submit reports since 2009 and 2013, respectively. Together, these programs have resulted in 408,627,211 pounds of computers and televisions being collected, with 396,064,499 pounds of this being recycled and 8,486,223 pounds being reused. Computer manufacturers also collected an additional 45,612,128 pounds of electronics-related equipment over the lifetime of the program, bringing the total weight of electronics collected to 454,239,339 pounds. For the 2023 calendar year, the programs collected a total of 16,783,640 pounds, comprising 3,429,080 pounds of computers, 476,597 pounds of additional electronic equipment, and 12,877,963 pounds of televisions. See *Chart 1* below for the weights collected since the creation of both programs.

Chart 1. Texas Manufacturer Electronics Recycling Programs Lifetime Totals



Texas Recycles Computers Program

In 2023, the total combined weight of computer equipment collected was 3,429,080 pounds. The total amount recycled was 3,399,142 pounds and the total amount reused was 26,255 pounds. Comparatively, the total weight of computer equipment

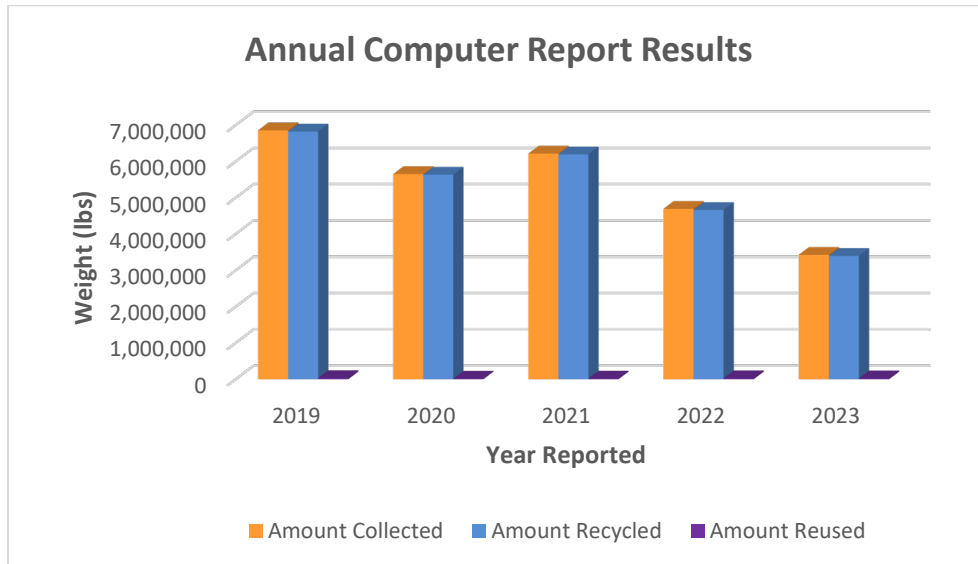
collected in 2022 was 4,695,390 pounds. Of that collected weight, 4,665,158 pounds were recycled, and 28,002 pounds were reused.

TCEQ allows computer manufacturers to report other electronics collected, in addition to the computer equipment covered under the program. Many computer manufacturers also voluntarily collect other electronics for recycling.

For 2023, manufacturers reported collecting 476,597 pounds of additional non-covered electronics. This number was higher than the 2022 voluntary collection amount of 329,368 pounds. Some of the manufacturers who typically reported voluntary collection weight indicated that they chose not to report additional voluntary collection weight this year, since the electronics were not computer related. The voluntarily reported numbers that include televisions reported under the Texas Recycles TVs program were excluded.

Historical data for the past five years of reporting is reflected in *Chart 2* below.

Chart 2. Annual Computer Report Results



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 TCEQ, the agency’s reported number does not fully represent all recycling activity in Texas.

As in previous years, some reports this year listed zero pounds of computer equipment collected, reused, or recycled. A common reason to report collecting no computer equipment is that 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.

With the rapid advancement of technology, electronics continue to become lighter and more compact. Manufacturers have reported lower total weight of materials collected year over year. A report published in October 2020 on behalf of the Journal of Industrial Ecology detailed that the total mass of electronic waste has been declining since 2015 with the phase-out of large legacy products like cathode-ray tube (CRT) televisions and computer monitors.¹ Additionally, the reuse market for computer equipment is healthy and less costly than hard to recycle devices such as televisions.

Appendix 1 lists amounts reported by each manufacturer for the 2023 calendar year.

Texas Recycles TVs Program

The weight of television equipment reported as having been collected in 2023 by participating manufacturers was 12,877,963 pounds. Of that collected weight, 12,877,963 pounds were recycled, and zero pounds were reused.

This year, all manufacturers participated in the Market Share option of the television recycling program, in which they are required to collect their assigned market share of television equipment. Of the 23 manufacturers that participated in the program, all 23 reported their 2023 collection data and submitted registrations for 2024.

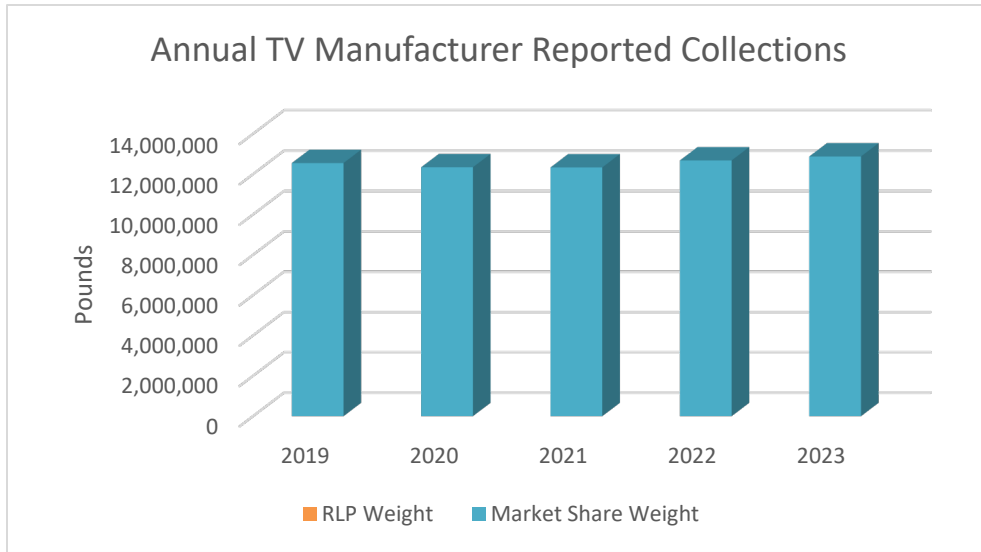
For the 2024 market share allocation, TCEQ calculated the recycling rate for the 23 reporting manufacturers to be 11.61%. Based on this recycling rate, manufacturers were provided their 2024 market share prior to Dec. 1, 2023. Manufacturers are required to collect at least their market share in 2024, as indicated in *Appendix 2*.

As a mechanism to comply with the rules, manufacturers have the option of participating in a Recycling Leadership Program (RLP). Participants in an RLP do not have a market share to collect, but must recycle equipment from a minimum of 200 collections sites, events, or programs available to the public. From 2017-2023, no manufacturers chose to participate in an RLP. However, as market share requirements continue to grow in the future, TCEQ believes the Recycling Leadership Program will prove to be a valuable alternative for compliance under the rule and statute.

Chart 3 shows the weight of television equipment reported as being collected by manufacturers.

¹ Available at [Journal of Industrial Ecology: The evolution of consumer electronic waste in the United States.](#)

Chart 3. Annual TV Manufacturer Reported Collections



Appendix 2 lists data reported by each manufacturer. The numbers reflect amounts sold and collected in calendar year 2023. Additionally, the individual market shares are provided. This data was submitted by manufacturers through February 2024. At the time of this report, 23 manufacturers representing 37 brands have submitted complete 2023 reports. Twenty-one manufacturers submitted registration for their 2024 programs and two manufacturers submitted a new registration.

Registered TV Recyclers

Beginning Jan. 31, 2014, television recyclers were required to report the total weight or volume of TVs received, recycled, and disposed of in the preceding calendar year (CY). In CY 2023, Texas TV recyclers received approximately 17.9 million pounds, recycled 17.3 million pounds, and disposed of zero pounds of television equipment. Additionally, one television recycler noted 6,621 pounds of wood casing was generated from projection TV manual breakdown and was not further recycled by the recycler.

Appendix 1 – 2023 Computer Manufacturers’ Reported Amounts

Manufacturer Name	Brand Name(s)	Weight Collected (lbs)	Weight Recycled (lbs)	Weight Reused (lbs)
@Xi Computer Corp	@Xi Computer Xi Computer	0.0	0.0	0.0
Acer America Corporation	Acer View AOPEN Aspire eMachines Gateway GrandPad	300,390.0	300,390.0	0.0
Advanced PC Products Inc	Advanced PC Advanced PC Quasar	50.0	50.0	0.0
Altex Electronics Ltd	Altex Electronics	18,000.0	18,000.0	0.0
Amazon Fulfillment Services Inc	Kindle Fire	104,392.0	80,018.0	24,374.0
Apple Inc	Apple Next	26,084.0	26,084.0	0.0
ASUS Computer International	ASUS	335.0	324.0	31.0
Avinext	Avinext MicroAge SuperMicro	1,265.0	1,265.0	0.0
Azpen Innovation Inc	Azpen	11.0	0.0	11.0
Barnes & Noble	Barnes & Noble NOOK by Barnes & Noble	2.0	2.0	0.0
Bass Computers	Bass Computers, Inc.	0.0	0.0	0.0
BenQ American Corp	BenQ	1,931.97	0.0	0.0
Computer Shak Inc	Computer Shak, Inc.	5,000.0	4,000.0	1,000.0
CTL Inc	CTL	0.0	0.0	0.0
Cyberpower Inc	Cyberpower	0.0	0.0	0.0
Dell Inc	Alienware Dell Wyse	1,166,408.0	1,166,408.0	0.0
DP Audio	Core Innovations	0.0	0.0	0.0
DPI Inc	Zeki	0.0	0.0	0.0
Durabook Americas	Durabook	0.0	0.0	0.0

Manufacturer Name	Brand Name(s)	Weight Collected (lbs)	Weight Recycled (lbs)	Weight Reused (lbs)
Dynabook Americas Inc	dynabook Portege dynabook TECRA Toshiba	0.0	0.0	0.0
ECP Computers & More	ECP Computers	0.0	0.0	0.0
Element TV Company LP	Element	0.0	0.0	0.0
Elo Touch Solutions Inc	Elo	0.0	0.0	0.0
Envision Peripherals Inc	AOC	0.0	0.0	0.0
Equus Computer Systems Inc	Mirus Nobilis Nobleview VitaMobility	0.0	0.0	0.0
Google Inc	Chromebook Pixel Google Chromebook Pixel C Tablet Project Tango Tablet	516.0	516.0	0.0
Hewlett Packard Company	Apollo Computer Compaq Digital Equipment Corporation (DEC) Hewlet-Packard VooDoo PC	1,500,000.0	1,500,00.0	0.0
HMD America, Inc.	Nokia	0.0	0.0	0.0
Hyundai Technology Group Inc	Hyundai Technology	0.0	0.0	0.0
iBoss Inc (Phantom Technologies)	iBoss	0.0	0.0	0.0
iBuyPower	iBuyPower	0.0	0.0	0.0
Ingram Micro (V7)	V7	0.0	0.0	0.0
Intel	Intel Compute Stick Intel NUC	1.0	1.0	0.0
International Business Machines	IBM	0.0	0.0	0.0
International Products Sourcing Group	Powerspec Winbook	59,054.0	59,054.0	0.0

Manufacturer Name	Brand Name(s)	Weight Collected (lbs)	Weight Recycled (lbs)	Weight Reused (lbs)
Komputer + Peripherals Inc	Komputer+	3,300.0	2,800.0	500.0
Kyocera International, Inc.	Kyocera	0.0	0.0	0.0
Lenovo (United States) Inc	Lenovo Medion	246.0	246.0	0.0
LG Electronics USA Inc	Goldstar LG LG Signature Zenith	255,141.0	255,141.0	0.0
LINSAY	LINSAY	31.0	0.0	17.0
Maverick Computer Services	Maverick Computer Services	0.0	0.0	0.0
Microsoft Corporation	Microsoft	41.0	41.0	0.0
MSI Computer Corp	MSI	0.0	0.0	0.0
Naxa Electronics	Naxa	0.0	0.0	0.0
OnePlus Technology	OnePlus	0.0	0.0	0.0
Oracle	Oracle MICROS	0.0	0.0	0.0
Panasonic Corp of North America	Panasonic	6.9	6.9	0.0
Planar Systems Inc	Planar	0.0	0.0	0.0
Premio, Inc.	Premio	0.0	0.0	0.0
Razer	Razer	0.0	0.0	0.0
Samsung Electronics Co	Samsung Samsung Galaxy Tab 4 Nook Samtron Syncmaster	1,757.0	0.0	0.0
SCEPTRE Inc	SCEPTRE	740.0	740.0	0.0
Seneca Data Distributors	Nexlink	0.0	0.0	0.0
Shuttle Computer Group Inc	Shuttle Computer Group Inc	0.0	0.0	0.0

Manufacturer Name	Brand Name(s)	Weight Collected (lbs)	Weight Recycled (lbs)	Weight Reused (lbs)
Sony Electronics, Inc.	Sony	0.0	0.0	0.0
Targus	Targus	0.0	0.0	0.0
TCT Mobile (US) Inc.	Alcatel Alcatel One Touch TCL	0.0	0.0	0.0
ViewSonic Corporation	Cybervision Optquest Utobia ViewSonic	167.5	167.5	0.0
Vtech Electronics North America LLC	LeapFrog Vtech	5.0	5.0	0.0
Wacom	Wacom	0.0	0.0	0.0
Walmart Inc	Motile Onn	5.0	5.0	0.0
Westgate Computers	Westgate Computers	2,187.0	1,865.0	322.0
Westinghouse Electronics USA, Inc.	Westinghouse	0.0	0.0	0.0
Wintec Industries Inc	FileMate	0.0	0.0	0.0

Appendix 2 - 2023 TV Manufacturers' Reported Amounts and 2024 Market Share

Manufacturer	Brands	Sold (lbs)	Collected (lbs)	Recycled (lbs)	Reused (lbs)	Market Share (lbs) Assigned for 2024
Amazon	Amazon Fire TV	**	59,150	59,150	0	**
Best Buy	Insignia, Toshiba, Pioneer	78,593,958	952,542	952,542	0	746,345
Curtis International	ProScan	167,904	6,921	6,921	0	7,442
DPI Inc.	GPX, iLive, Memorex, WeatherX	7,474*	1,231	1,231	0	406
Element TV Company	Element	3,404,115	85,345	85,345	0	85,714
EliteLux Technologies	Sansui	1,083,972	8,400	8,440	0	5,452
Funai Corp.	Funai, Magnavox, Phillips, Sanyo	33,608,060	178,316	178,316	0	276,368
Hisense USA	Hisense, Toshiba	151,638,479	1,144,269	1,144,269	0	1,289,318
JVC Americas	JVC	1,566,716	44,525	44,525		6,983
LG Electronics	LG, Zenith, Goldstar, LG Signature	202,238,598.46	2,551,703	2,551,703	0	2,160,033
Lippert Components	Furrion	458,275.62	0	0	0	5,354
Naxa	Naxa	3,677	20	20	0	42
Peerless Industries	Peerless-AV	15,755*	1,910	1,910	0	1,910
Roku Inc.	Roku	3,287,000	0	0	0	0

Manufacturer	Brands	Sold (lbs)	Collected (lbs)	Recycled (lbs)	Reused (lbs)	Market Share (lbs) Assigned for 2024
Samsung Electronics	Samsung	346,193,196	4,501,286	4,501,286	0	4,227,453
Sceptre Inc.	Komodo, oCosmo, Sceptre,	682,440	17,717	17,717	0	16,877
Skyworth USA	Skyworth	29,680*	0	0	0	14,264
Sony Electronics	Sony	50,770,295	816,313	816,313	0	718,707
Sunbrite TV	Sunbrite TV	34,227*	73,204	73,204	0	10,220
TTE Technology	TCL	**	1,292,127	1,292,127	0	**
VIZIO Inc.	VIZIO	**	1,003,292	1,003,292	0	**
Walmart Inc.	Onn	118,212,981.1	94,656	94,656	0	705,823
Westinghouse Electronics USA, Inc	Westinghouse	7,319,855	45,036	45,036	0	41,806

*In accordance with [30 TAC, §328.171](#)², manufacturers may report weight sold in Texas or nationally. This manufacturer reported weight sold in Texas.

**Some manufacturers have marked their sales data as confidential and proprietary, in accordance with [30 TAC §328.189](#)³.

2023 TV Manufacturers Participating under the Texas Recycles Computers Program

Manufacturer	Brands
Viewsonic Corporation	Viewsonic

² Available at [30 TAC, §328.171](#)

³ Available at [30 TAC, §328.189](#)