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# Program Report on Texas Recycles Computers and Texas Recycles Televisions

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External Relations Division

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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## Contents

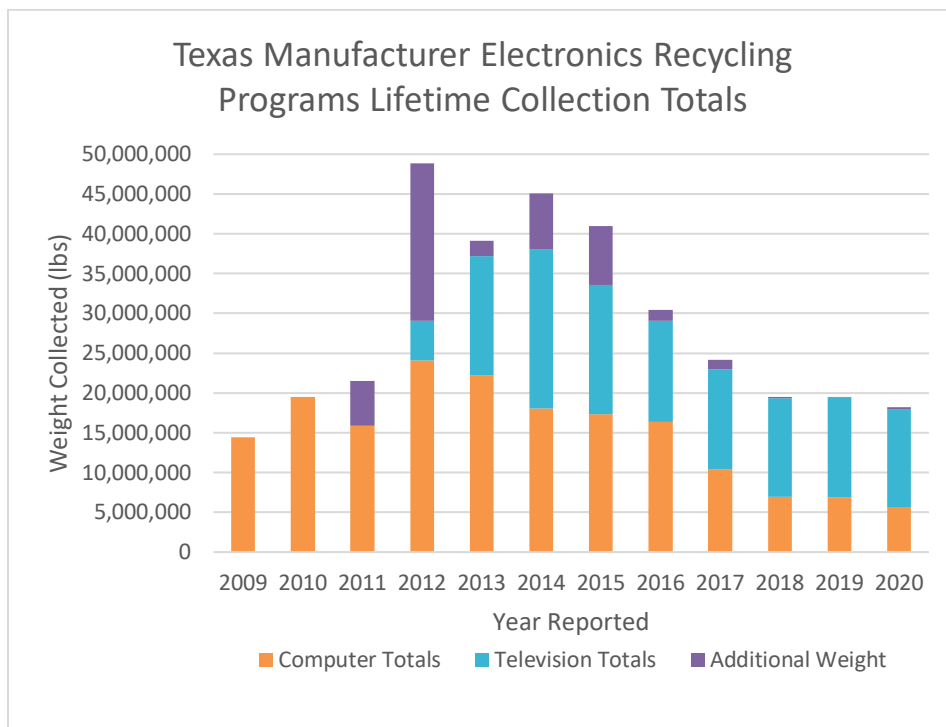
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<b>Results from Manufacturers' Annual Reports</b> .....	2
Texas Recycles Computers Program .....	2
Texas Recycles TVs Program .....	4
<b>Registered TV Recyclers</b> .....	5
<b>Appendix 1- 2020 Computer Manufacturers' Reported Amounts</b> .....	6
<b>Appendix 2- 2020 TV Manufacturers' Reported Amounts and 2020 Market Share</b> .....	9
2020 TV Manufacturers Participating under the Texas Recycles Computers Program.....	10

# 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 296,517,206 pounds of computers and televisions being collected, with 283,802,576 pounds of this being recycled and 68,279,750 pounds being reused. Computer manufacturers also collected an additional 44,629,225 pounds of electronics-related equipment over the lifetime of the program, bringing the total weight of electronics collected to 341,146,432 pounds. For the 2020 calendar year, the programs collected a total of 18,182,976 pounds, comprising 5,653,234 pounds of computers, 187,284 pounds of additional electronic equipment, and 12,342,458 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

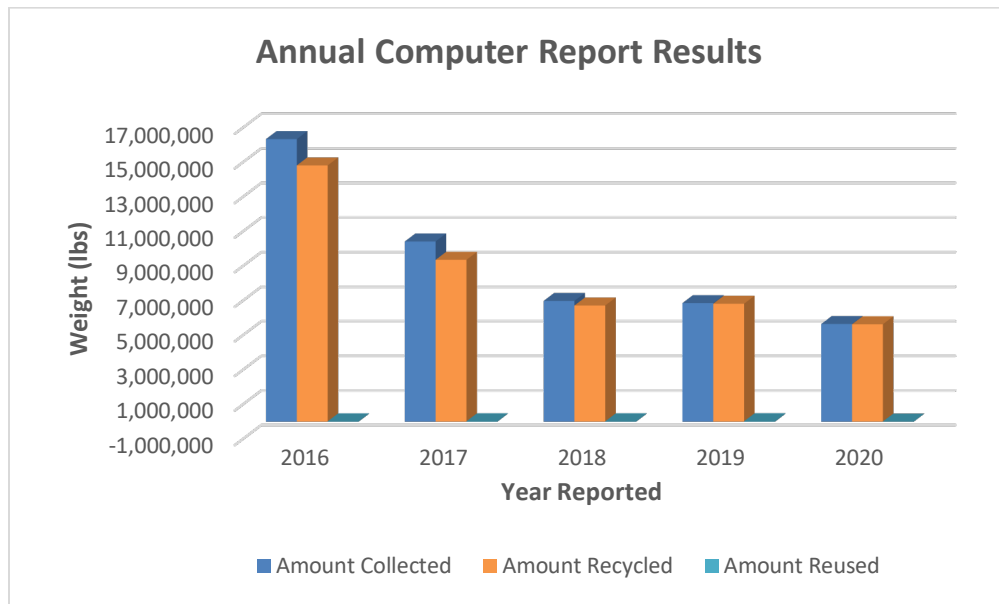
In 2020, the total combined weight of computer equipment collected was 5,653,234 pounds. The total amount recycled was 5,636,226 pounds and the total amount reused was 16,770 pounds. Comparatively, the total weight of computer equipment collected in 2019 was 6,857,990 pounds. Of that collected weight, 6,722,584 pounds were recycled, and 28,080 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 2020, manufacturers reported collecting 187,284 pounds of additional non-covered electronics. This number was higher than the 2019 voluntary collection amount of 21,528 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 July 2011 on behalf of the Consumer Electronics Association detailed this manufacturing trend between 2004 and 2010 from cathode ray tubes to lighter flat panel technology for televisions and computer monitors.<sup>1</sup> Additionally, the reuse market for computer equipment is healthy and less costly than hard to recycle devices such as televisions. Lastly, we received notice from manufacturers that collections were temporarily stopped because of the global COVID-19 pandemic. Overall, this may have affected amounts collected in 2020.

*Appendix 1* lists amounts reported by each manufacturer for the 2020 calendar year. A total of four manufacturers failed to report and were removed from the program.

### **Texas Recycles TVs Program**

The weight of television equipment reported as having been collected in 2020 by participating manufacturers was 12,342,458 pounds. Of that collected weight, 12,342,458 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 20 manufacturers that participated in the program, 19 reported their 2020 collection data and submitted registrations for 2021. One manufacturer is being removed from the program for failure to meet their 2020 Market Share assignment.

TCEQ calculated the recycling rate for the 20 reporting manufacturers to be 11.68%. Based on this recycling rate, manufacturers were provided their 2021 market share prior to Dec. 1, 2020. Manufacturers are required to collect at least their market share in 2021, 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 2017-2020, no manufacturers chose to participate in an RLP. However, as market share

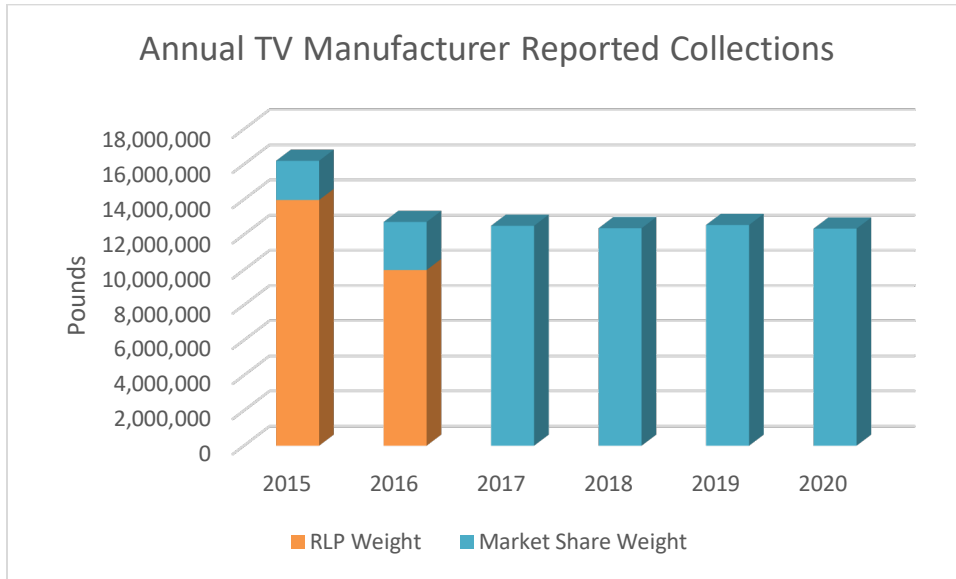
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<sup>1</sup> Available at [Pike Research: Materials Footprint Reduction of Televisions and Computer Monitors](#).

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.

**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 2020. Additionally, the individual market shares are provided. This data was submitted by manufacturers through February 2021. At the time of this report, 19 manufacturers representing 35 brands have submitted complete 2020 reports and submitted registration for their 2021 programs. Two additional manufacturers representing four brands satisfied their program requirements by participating in the Texas Recycles Computers program.

## 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 2020, Texas TV recyclers received approximately 12.3 million pounds, recycled 12.3 million pounds, and disposed of zero pounds of television equipment.

## Appendix 1- 2020 Computer Manufacturers' Reported Amounts

<b>Manufacturer Name</b>	<b>Brand Name(s)</b>	<b>Weight Collected (lbs)</b>	<b>Weight Recycled (lbs)</b>	<b>Weight Reused (lbs)</b>
@Xi Computer Corp	@Xi Computer Xi Computer	0	0	0
Acer America Corporation	Acer View Aspire eMachines Gateway	500,458.0	500,458.0	0.0
Advanced PC Products Inc	Advanced PC Advanced PC Quasar	50.0	50.0	0.0
Altex Electronics Ltd	Altex Electronics	59,199.0	59,199.0	0.0
Amazon Fulfillment Services Inc	Kindle Fire	60,071.0	53,412.0	6,659.0
Apple Inc	Apple Next	27,725.95	27,725.95	0.0
ASUS Computer International	ASUS	146.0	146.0	0.0
Avinext	Avinext MicroAge SuperMicro	2,397.0	2,397.0	0.0
Azpen Innovation Inc	Azpen	34.0	0.0	34.0
Barnes & Noble	Barnes & Noble NOOK by Barnes & Noble	1.0	1.0	0.0
Bass Computers	Bass Computers, Inc.	0.0	0.0	0.0
BenQ American Corp	BenQ	0.0	0.0	0.0
CHUWI	CHUWI	0.0	0.0	0.0
Computer Shak Inc	Computer Shak, Inc.	3.0	2.0	1.0
Curtis International Ltd	Klu Proscan	0.0	0.0	0.0
Cyberpower Inc	Cyberpower	0.0	0.0	0.0
Dell Inc	Alienware Dell Wyse	1,622,301.0	1,622,301.0	0.0
DPI Inc	Zeki	1,000.0	1,000.0	0.0
Dynabook Americas Inc	Portege 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 Envision	0.0	0.0	0.0



Equus Computer Systems Inc	Mirus Nobilis Nobleview VitaMobility	0.0	0.0	0.0
Facebook Technologies LLC	Portal	0.0	0.0	0.0
Fujitsu Computer Systems Corporation	Fujitsu Fujitsu-Siemens	0.0	0.0	0.0
Gammatech Computer Corporation	Durabook Slimnote	0.0	0.0	0.0
Google Inc	Chromebook Pixel Google Chromebook Pixel C Tablet Project Tango Tablet	67.0	67.0	0.0
Hewlett Packard Company	Apollo Computer Compaq Digital Equipment Corporation (DEC) Hewlett-Packard VooDoo PC	2,999,981.0	2,999,981.0	0.0
HUAWEI DEVICE USA INC	Huawei	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	0.0	0.0	0.0
International Business Machines	IBM	0.0	0.0	0.0
Kidz Delight Ltd	Kurio	800.0	800.0	0.0
Komputer + Peripherals Inc	Komputer+	1,500.0	1,500.0	0.0
Lenovo (United States) Inc	Lenovo Medion	236.0	236.0	0.0
LG Electronics USA Inc	Goldstar LG Zenith	195,800.0	195,800.0	0.0
LINSAY	LINSAY	12.0	0.0	3.0
Maverick Computer Services	Maverick Computer Services	0.0	0.0	0.0
Microsoft Corporation	Microsoft Nokia	16.0	16.0	0.0
Motorola Mobility LLC	Motorola	0.0	0.0	0.0
MSI Computer Corp	MSI	0.0	0.0	0.0

NEC Display Solutions of America Inc	NEC NEC AccuSync NEC MultiSync	0.0	0.0	0.0
NVIDIA Corp	Shield Portable Shield Tablet	0.0	0.0	0.0
OnePlus	OnePlus	0.0	0.0	0.0
Oracle	Sun	175,627.0	165,616.0	8,781.0
Panasonic Corp of North America	Panasonic	105.0	105.0	0.0
PC & Cable	PC & Cable	900.0	900.0	0.0
Planar Systems Inc	Planar	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	17.4	17.4	0.0
SCEPTRE In	SCEPTRE, Inc	205.0	205.0	0.0
Seneca Data Distributors	Nexlink	0.0	0.0	0.0
TCL Moka International Limited	ONN	0.0	0.0	0.0
TCT Mobile (US) Inc	Alcatel Alcatel One Touch TCL	2.0	2.0	0.0
Trans Cosmos America, Inc	VAIO	0.0	0.0	0.0
Venturer Electronics, Inc	Pro12 RCA	119.8	119.8	0.0
ViewSonic Corporation	Cybervision Optiquest Utobia ViewSonic	234.0	234.0	0.0
VTech Electronics North America LLC	LeapFrog Vtech	8.0	8.0	0.0
Wacom Technology Inc	Wacom	0.0	0.0	0.0
Westgate Computers	Westgate Computers	4,218.0	3,927.0	291.0
Wintec Industries Inc	FileMate	0.0	0.0	0.0

## Appendix 2- 2020 TV Manufacturers' Reported Amounts and 2021 Market Share

<b>Manufacturer</b>	<b>Brands</b>	<b>Sold (lbs)</b>	<b>Collected (lbs)</b>	<b>Recycled (lbs)</b>	<b>Reused (lbs)</b>	<b>Market Share (lbs) Assigned for 2021</b>
Best Buy	Insignia, Toshiba, Sharp	79,269,735	1,306,856	1,306,856	0	1,182,486
Curtis International	ProScan, Sylvania, RCA, Scenium	1,021,160	16,996	16,996	0	15,372
DPI Inc.	GPX, iLive, WeatherX, Memorex	11,286*****	2,664	2,664	0	1,123
Element TV Company	Element	8,333,615	271,568	271,568	0	204,920
EliteLux Technologies	Sansui	598,373	8,000	8,000	0	3,100
Funai Corp.	Funai, Magnavox, Philips, Sanyo	28,145,919	508,163	508,163	0	435,322
Hisense USA	Hisense	107,950,655	1,217,324	1,217,324	0	798,594
Hitachi America Ltd.	Hitachi	1,787,313	62,005	62,005	0	32,181
JVC Americas	JVC	6,314,040	5,631	5,631	0	27,490
LG Electronics	LG, Zenith, Goldstar, LG Signature	216,905,153	1,958,000	1,958,000	0	1,931,002
Peerless Industries	Peerless-AV	2,578*****	0	0	0	301
PLR IP Holdings**	Polaroid	0	35,468	35,468	0	11,001
Samsung Electronics	Samsung	499,209,812	3,880,752	3,880,752	0	4,386,308
Sceptre Inc.	oCosmo, Sceptre, Komodo	2,450,620	39,141	39,141	0	27,310
Seura Inc.***	Seura	7,980*****	0	0	0	1,836

<b>Manufacturer</b>	<b>Brands</b>	<b>Sold (lbs)</b>	<b>Collected (lbs)</b>	<b>Recycled (lbs)</b>	<b>Reused (lbs)</b>	<b>Market Share (lbs) Assigned for 2021</b>
Sony Electronics	Sony	69,942,987	532,106	532,106	0	499,890
Sunbrite TV	Sunbrite TV	1,517,381	39,178	39,178	0	13,728
TTE Technology	TCL	*	1,327,787	1,327,787	0	*
VIZIO Inc.	VIZIO	*	1,130,819	1,130,819	0	*
Walmart Inc.****	Onn	11,763,965	0	0	0	0

\*Some manufacturers have marked their sales data as confidential and proprietary, in accordance with [30 TAC §328.189](#)<sup>2</sup>.

\*\*Did not report television equipment sales in Texas and has opted to remain in the program.

\*\*\*Failed to meet the Market Share Assignment for 2020 and has been removed from the program.

\*\*\*\*Submitted initial recovery plan in 2021. A market value will not be assigned until the second year of registration, in accordance with [30 TAC §328.173](#)<sup>3</sup>.

\*\*\*\*\*In accordance with §328.171<sup>4</sup>, manufacturers may report weight sold in Texas or nationally. This manufacturer reported weight sold in Texas.

## 2020 TV Manufacturers Participating under the Texas Recycles Computers Program

<b>Manufacturer</b>	<b>Brands</b>
NEC Display Solutions of America, Inc.	NEC, NEC AccuSync, NEC MultiSync,
Viewsonic Corporation	Viewsonic

<sup>2</sup> Available at [30 TAC, §328.189](#).

<sup>3</sup> Available at [30 TAC, §328.173](#).

<sup>4</sup> Available at [30 TAC, §328.171](#).