

# **OCCERA**

## **Oklahoma Computer Equipment Recovery Act**

### **A Summary of the 2020 Manufacturer Annual Reports**

**June 21, 2021**

**Oklahoma Department of Environmental Quality (DEQ)**

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Submitted to: The Governor, the President Pro Tempore of the Senate,  
and the Speaker of the House of Representatives

## Definitions

**Covered device:** a desktop or notebook computer, or computer monitor which is no longer of use to a consumer. Does not include televisions, any part of a motor vehicle, personal digital assistants, telephones, or medical devices that contain a video displaying device

**Minor manufacturer:** a manufacturer that sells, produces, or imports between 51 and 999 covered devices in Oklahoma

**Major manufacturer:** a manufacturer that sells, produces, or imports 1,000 or more covered devices in Oklahoma

**Compliant:** A manufacturer is compliant when they have submitted their annual report, paid their annual fee, and have their recovery plan on file.



## Introduction

The Oklahoma Computer Equipment Recovery Act ("Act"), 27A O.S. § 2-11-601 et seq.

- Became effective January 1, 2009
- Its purpose is to establish convenient and environmentally sound collection, recycling, and reuse of computer electronics in Oklahoma that have reached the end of their useful lives.

It is important to recycle electronics because they contain valuable materials such as metals, plastic, and glass that can be reused and recycled. Electronics also contain raw material such as oil, iron, gold, platinum, palladium, copper, and other precious metals and critical elements. These materials are environmentally costly because they are mined from the earth, transported, and processed, which takes large amounts of energy, depletes our natural resources, and creates greenhouse gas emissions and pollution. If these materials are not responsibly recycled, they have the potential to enter our environment and adversely affect human health and the environment.<sup>1</sup> Electronics today also contain lithium-composed batteries, which play a key role in the downsizing of modern electronics, as they allow a large amount of energy to be stored in a very small space. Consequently, lithium-composed batteries have high potential to create a spark and start fires in garbage disposal vehicles, material recovery facilities, and landfills. This makes responsible disposal of electronics even more crucial.

- Manufacturers, DEQ, retailers, consumers, and the Office of Management and Enterprise Services share responsibilities.

<sup>1</sup> United States Environmental Protection Agency. (December 2019). Basic information about electronics stewardship. <https://www.epa.gov/smm-electronics/basic-information-about-electronics-stewardship#02>

## Responsibilities

### Manufacturers that sell, import, or produce 50 or more covered devices in Oklahoma must:

- Adopt and implement a recovery plan that:
  - Explains how collection recovery will occur at no cost to the consumer
  - Provides reasonably convenient collection services for consumers, such as a mail-back program, and
  - Includes a statement that the manufacturer will not dispose of their devices in landfills, or contract with recycling companies who dispose of devices in landfills, other than incidental amounts
- Permanently and visibly label covered devices with the manufacturer's brand
- Include collection and recovery information for consumers on their websites
- Submit an annual report (Figure 1) to the DEQ by March 1st including the following information of the previous calendar year:
  - A summary of their recovery program
  - The weight of covered devices collected and recovered
  - The location and dates of any electronic waste collection events, and
  - Certification that all covered devices collected pursuant to the provisions of this Act shall be recovered in a manner that is in compliance with all applicable state, federal, and local laws.
- Pay an annual fee adjusted for inflation to DEQ:
  - 2020 Major Manufacturer fee: \$5,951.30
  - 2020 Minor Manufacturer fee: \$1,190.26

## OKLAHOMA ANNUAL REPORTING GUIDANCE DOCUMENT

The Oklahoma Computer Equipment Recovery Act (Act) became effective on January 1, 2009. Pursuant to O.S. § 27A 2-11-605(H) and no later than **March 1** of each year, each manufacturer shall submit a report to the Department of Environmental Quality (DEQ). The Act may be found on DEQ's website at the following URL: <https://www.deq.ok.gov/land-protection-division/recycling/computer-equipment-recycling/manufacturers-of-electronic-waste/>.

Manufacturer Represented:  Reporting Year (Jan 1 – Dec 31):

Mailing Address (invoices):

Printed Contact Name:  Contact Email:

Choose one:

- Major Manufacturer** (sells, produces, or imports 1,000 or more covered devices per year)
- Minor Manufacturer** (sells, produces, or imports between 51 and 999 covered devices per year)
- Neither minor nor major** (sells, produces, or imports no more than 50 covered devices per year)
  - > If neither, do you plan to sell, produce, or import covered devices next year? Yes  No

\* If **Minor Manufacturer** or **Neither**, please provide information on your sales, production, and importation in Oklahoma for the reporting year. The DEQ does not have a specific format for submitting this information as it may differ between manufacturers.

1. Describe a brief summary of your current implemented recovery program, listing any notable program or contact changes, and a link to you website's E-waste program. You may include attachments.

Link to website's E-Waste Program:

2. List the total weight, in pounds, of covered devices collected:
3. Fill out the following table for location and dates of all collection events held during the reporting year. If no events were held, please state this:

Location	Date	Amount Collected

4. I hereby certify that all information provided is accurate to the best of my knowledge and that collection and recovery of all covered devices complies with the provisions of Section 9 of the Oklahoma Computer Equipment Recovery Act. Section 9 states all covered devices collected shall be recovered in a manner that is in compliance with all applicable federal, state, and local laws.

Signature Required: \_\_\_\_\_ Date: \_\_\_\_\_

You may submit this report electronically and email to: [Amanda.Scofield@deq.ok.gov](mailto:Amanda.Scofield@deq.ok.gov) using the Subject Line 'Annual Report' <https://www.deq.ok.gov/land-protection-division/recycling/computer-equipment-recycling/manufacturers-of-electronic-waste/>

You may mail this report to: Amanda Scofield  
Land Protection Division  
707 North Robinson, PO Box 1677  
Oklahoma City, OK 73101-1677  
(405) 702-5118

Figure 1 – A sample of the Annual Reporting Guidance Document updated in 2019.

**DEQ must:**

- Review and approve all manufacturer-submitted recovery plans and annual reports, and notify manufacturers within 30 days if non-compliant
- Maintain and make available a list of registered manufacturers who have implemented approved recovery plans (Table 1), including a separate list of manufacturers who collect additional brands other than their own (Table 4).
- File and make all annual reports and recovery plans available to the public
- Conduct audits and inspections, take enforcement action, and assess penalties against a manufacturer, retailer, or recycler, and
- Take responsibility for public education regarding collection and recovery of covered devices.

**Retailers** are not to sell, or offer for sale, a covered device of a non-compliant manufacturer, or a manufacturer's product that is not properly affixed with the manufacturer's brand label.

**Consumers** are responsible for removing all personal data, or other information, that may be on a covered device that is collected or recovered.

The **Office of Management and Enterprise Services** ensures that no state agency shall contract with non-compliant manufacturers for the purchase of covered devices.



## A Summary of 2020 Program Status

DEQ maintains a website with links and information regarding program information, resources and tools, annual reports, consumer-focused information, manufacturer-focused information, and retailer-focused information. The webpage was updated in 2019 and continues to be updated regularly.<sup>2</sup>

### Compliant manufacturers: 28 (Table 1)

- Number of Major manufacturers: 22
- Number of Minor Manufacturers: 3
- Number of neither major, nor minor manufacturers: 3
  - These manufacturers did not sell over 50 covered devices, so were not required to pay the annual fee. They have a recovery plan on file, submitted their annual report, and intend to sell, produce, or import over 50 covered devices next year, and so maintain their compliant status.

### Non-Compliant manufacturers: 11

- Three paid their invoice and have a recovery plan on file, but did not submit their annual report
- Seven submitted their annual report and have a recovery plan on file, but did not pay their annual fee
- One has a recovery plan on file, but did not submit their annual report nor pay their annual fee
- DEQ gains compliance of non-compliant manufacturers throughout the year by contacting them via email and/or phone. Formal enforcement may be taken if necessary.

### 2020 Compliant Manufacturers

Acer America Corp
Apple Inc
ASUS Computer International (ACI)
CyberPower Inc
Dell Marketing LP
Digital Products International Inc (DPI)
Dynabook Americas Inc
Element TV Company LP
Elo Touch Solutions Inc
Fujitsu
Google LLC
HP Inc
iBuyPower
International Business Machines Corp (IBM)
Intel Corp
Lenovo
LG Electronics USA Inc
Microsoft Corp
Motorola Mobility LLC
MSI Computer Corp
Planar Systems
Samsung Electronics America Inc
Sceptre, Inc.
TCT Mobile Inc
Transcosmos Americas Inc
ViewSonic Corp
Vtech Electronics North America LLC
Walmart

Table 1

<sup>2</sup> <https://www.deq.ok.gov/land-protection-division/recycling/>



### Pounds of Covered Devices Collected in 2020, Manufacturer Reported

Manufacturer	Pounds
LG Electronics USA Inc	155,000
Dell Marketing LP	124,807
HP Inc	50,134
Apple Inc	2,003
Sceptre, Inc.	200
Acer America Corp	24
ASUS Computer International (ACI)	11
Google LLC	3
Vtech Electronics North America LLC	2
Nook Digital LLC	1
<b>Total</b>	<b>332,185</b>

Table 2

### Collection Events Held in 2020

Manufacturer	# Collection Events Held	Weight Collected
HP Inc	2	50,027
LG Electronics USA Inc	1	3,421
<b>Total</b>		<b>53,448</b>

Table 3

## Beyond Brand

In 2020, four manufacturers offered recovery of brands other than their own. Details can be seen in Table 4.

### Manufacturers that Accept All Brands of Electronic Equipment

Manufacturer	Drop-off	Mail-In	Trade-in	Pick-up	More Info
Apple Inc	x	x	x		Trade in device for credit toward your next purchase, or get an Apple Gift Card. If device isn't eligible for credit, it will be recycled.
Best Buy*	x				Any brand; \$25 fee for certain TVs & monitors; 3 items per day
Cellco Partnership DBA Verizon	x	x	x		Any brand; drop-off at Staples and Fedex
Dell Marketing LP	x	x	x	x	Trade-in, recycle, or drop-off or schedule a pick-up at Fedex or participating Goodwill stores
HP	x	x			Any brand, Drop-off at Staples & Fedex
Staples*	x				Any brand, \$25 fee for certain TVs & monitors, 3 items per day

\*Not manufacturers of covered devices in OCERA, but offer convenient services

Table 4

## Annual Fees

**Total revenue from Annual Fees: \$ 152,333.28**

A \$595.13 late fee was assessed if invoices were not paid within 30 days following the due date.

## Historical Reporting

### Program Compliance

The program began in 2009 with 27 compliant manufacturers. In 2013, nearly 20 new manufacturers joined the program. Calendar years 2016 and 2018 boasted 48 compliant manufacturers, the highest in program history. In 2020 there were 28 compliant manufacturers out of 39 total participating manufacturers. The general trend of compliance has been a rise from 2009 to 2016 and a fall from 2016 to 2020. Slight fluctuations in manufacturer participation throughout the program may be attributed to manufacturers closing, changing their scope of marketing, or merging with other entities over time. However, according to IBISWorld Industry Research, the number of computer manufacturers in the US has declined 5.8% per year on average since 2016. According to Gartner Global Research and Advisory Company, the top 5 manufacturers consume 82.6 of the market today, leaving 17.4% to other, smaller businesses. By contrast, in 2016, the five top manufacturers consumed 69.2% of the market leaving 30.8% percent to other, smaller businesses.<sup>3</sup> The steadier decline in compliant manufacturers in recent years can be attributed to the decline in total manufacturers participating in the industry.

### Program Collection

In 2009, the first year of the program, 27 manufacturers reported 817,277 pounds of covered devices collected. From 2010 to 2015 collection rates rose and ranged between 2,500,000 pounds and 3,000,000 pounds when there were between 35 and 45 manufacturers reporting. Collection rates fell in 2016 to 1,616,133 pounds as almost every manufacturer reported significantly lower pounds collected. Rates have continued falling since. Calendar year 2020 marks the lowest reported collection of 332,185 pounds.

## Number of Compliant Manufacturers in Program History



Figure 2

## Pounds of Covered Devices Collected in Program History

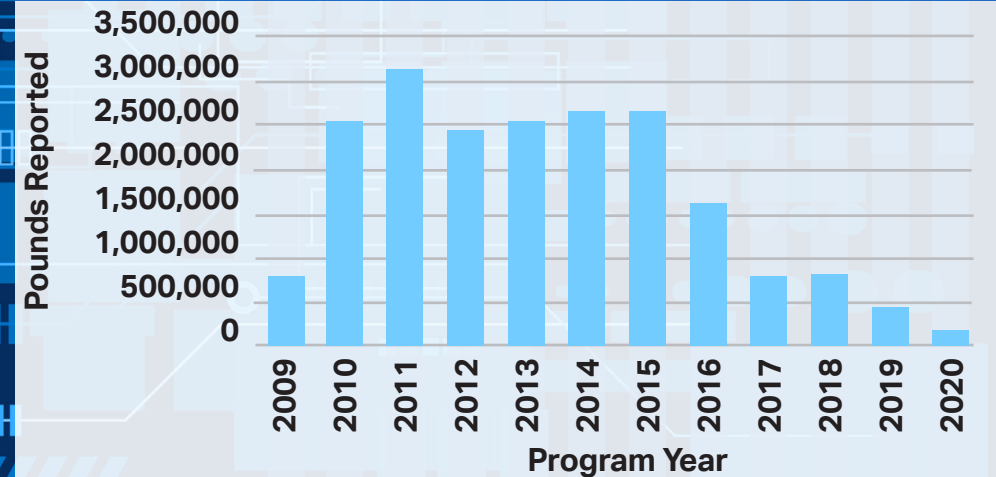


Figure 3

<sup>3</sup> "Gartner Says 2016 Marked Fifth Consecutive Year of Worldwide PC Shipment Decline". Gartner. January 11, 2017. Retrieved January 12, 2017.





## Program Analysis

This year marks the 12th year that the Oklahoma Computer Equipment Recovery Act has been in effect. Since 2016, the number of participating manufacturers and collection weights have been declining. These declining figures may be attributed to the effects of the rapidly evolving electronic industry, low manufacturer participation, and consumer inconvenience. Declines in 2019 and 2020 may be attributed to COVID-19.

## Evolving Electronics

Electronics evolve so quickly that some industry professionals consider a device to be vintage if it is only five years old. Since 2009, many electronics have become obsolete, such as the personal digital assistant (PDA) as mentioned in OCERA; others have become much smaller and lighter. Lithium-composed batteries have made this possible but have also made responsible recycling even more crucial as they present greater fire risks; and other new electronics have come onto the market, such as smartphones and tablets.

The decline in collection weight over the years can be attributed to the smaller and lighter electronics of the present compared to the past, as seen in Table 5. As the electronics industry rapidly evolves, these smaller and lighter devices are replacing the heavier laptop and desktop computers of the past.

As the industry evolves, industry professional Jason Linnell, the co-founder and executive director of the National Center for Electronics Recycling (NCER), believes that there is a need to “re-evaluate how to measure success in collecting and recycling electronics,” as many electronics recycling programs across the country measure success in weight.<sup>4</sup> DEQ will continue collaborating with industry stakeholders and researching innovative alternatives to efficiently measure success.

**Weights of Older vs. Newer Electronics**

Old Device	Weight (lbs.)	New Device	Weight (lbs.)
2011 Desktop iMac	>30	2020 Desktop iMac	13
2011 LG Laptop	6	2020 LG Laptop	2
		Tablet Computer	1.75
		Smart Phones	0.3

Table 5

<sup>4</sup> Linnell, J. (May 2015). Waste360. The Dark Side of Recycling Lighter Electronics. <https://www.waste360.com/e-waste/dark-side-recycling-lighter-electronics>



## Manufacturer and Consumer Participation

Decreases in recent collection totals may also be attributed to declining manufacturer and consumer participation: manufacturers are playing a passive role in collection while consumers seem inconvenienced by mail-back programs.

Compliant manufacturers have hosted very few collection events since 2015. Between 2015 and 2020, there have been five manufacturers that have hosted nine collection events. If manufacturers hosted more collection events, collection rate may increase. However, hosting collection events is not required of manufacturers. Instead, manufacturers have mail-back programs.

Although all compliant manufacturers offer mail-back programs, Oklahomans largely prefer drop-off locations. Unfortunately, only four compliant manufacturers currently offer drop-off as a recovery option (Table 4). In previous years, Best Buy has been the most popular manufacturer to offer drop-off options. However, they stopped manufacturing covered devices in 2020. Although they maintain their drop-off and recovery program, they are no longer required to report to DEQ. Best Buy contributed largely to collection weights in the past, reporting 44,277 pounds in 2019. Their drop-off program remains the most popular means of consumer disposal in Oklahoma and the absence of their collection weight can be seen in the low collection weight of 2020. Staples also offers drop-off locations, which remain popular for consumers. Staples does not manufacture covered devices and is not required to report their collection weights.

DEQ has taken Oklahomans' preferences into account and is using OCERA manufacturer fees to provide Collection Event Grants to Oklahoma communities. Grantees are required to partner with an e-Stewards or R2 certified electronics recycler to ensure proper disposal. These events create convenient and free opportunities for consumers to responsibly dispose of their electronic waste. The events also keep Oklahoma clean by preventing illegal roadside dumping. In 2020, \$70,801 were allocated toward household hazardous waste collection events including electronic waste. As consumers continue to express significant interest in drop-off sites, rather than mail-back programs, DEQ will continue to assemble collection events that support Oklahoma communities and the collection of electronic waste.



## Electronic Recycling Across the Country

There are 25 states with legislation relating to computer equipment recovery, as seen in Figure 4.<sup>5</sup>

Most legislation was implemented in 2009 when there was an ongoing nation-wide effort, embraced and supported by the computer industry, to establish convenient and environmentally sound collection, recycling, and reuse of electronics that have reached the end of their useful lives. According to the National Center for Electronics Recycling (NCER)<sup>6</sup>, many states with electronic recycling programs are continually updating and amending their programs by considering a different measure of success, including more types of electronics, implementing landfill bans, and including a wider range of participation. A common update seen throughout the country has been to expand their programs to include more types of electronics, such as televisions. Many Oklahoma consumers who inquire about electronics recycling are interested in recycling televisions along with computers. OCERA does not include televisions as covered devices, leaving Oklahomans with limited options for recycling televisions. Lastly, OCERA only applies to household consumers. Another common amendment throughout the country has been to expand the program to include businesses and even schools.

## Effects of COVID-19

In calendar year 2020, COVID-19 hit the coast in February, right before calendar year 2019 annual reports were due, which may have been a cause for low reporting and low collection totals for calendar year 2019. However, the effects of COVID-19 continued into the 2020 calendar year when electronic drop-off sites suspended their take-back programs for much of the year. DEQ retailer inspections were also suspended in 2020. Effects of COVID-19 will likely continue through the 2021 calendar year.

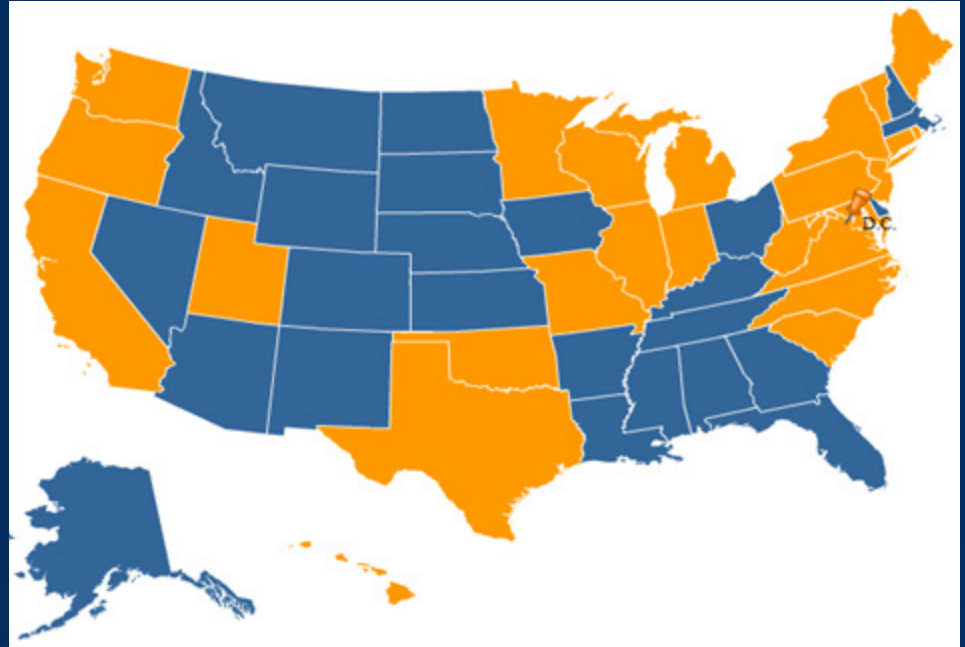


Figure 4 – The 25 states with varying electronics recycling laws are depicted in orange.

## Conclusion

Moving forward, DEQ will continue to conduct outreach efforts to increase manufacturer, consumer, and retailer awareness and participation; provide technical assistance for community collection events throughout the state; conduct retailer inspections; continually update its resources; and collaborate with stakeholders to identify areas of improvement. Oklahoma's program will continue to serve our citizens and will continue to evolve.

<sup>5</sup> Electronics Recycling Coordination Clearing House (2020). Map of states with legislation.

<https://www.ecycleclearinghouse.org/contentpage.aspx?pageid=10>

<sup>6</sup> Linnell, J. (June 2015). E-Scrap News. Developments across a decade.

<http://www.electronicrecycling.org/wordpress/wp-content/uploads/2015/09/NCER-10-year-e-scrap-mag-jun15.pdf>



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