

Quarterly Update on California's Covered Electronic Waste Recycling Program Implementation of the Electronic Waste Recycling Act of 2003 (SB 20, Sher)

First Quarter 2021

Overview

The Electronic Waste Recycling Act of 2003 (Act), as amended and codified in the Public Resources Code (PRC) 42460, et seq, established a funding mechanism to improve and provide for the proper end-of-life management of certain hazardous electronic products. A fee paid by consumers of covered electronic devices (CED) at the time of retail purchase funds the program. Retailers remit collected fees to the California Department of Tax and Fee Administration (CDTFA), who deposits the funds in the Electronic Waste Recovery and Recycling Account (EWRRA). Approved recyclers and collectors of covered electronic waste (CEW) subsequently receive payments to offset the average net cost of appropriate recovery, processing, and recycling activities.

Intent of the Act

- Provide financial relief to responsible parties for managing CEW.
- Foster cost-free recycling opportunities for consumers throughout the state.
- Reduce illegal dumping; increase compliant management and disposition.
- Eliminate the stockpile of waste computer monitors/TVs.
- Decrease amount of hazardous materials in covered devices.

Major Components of the Act

- Assesses an electronic waste recycling fee on retail sales of CEDs.
- Tasks the Department of Resources Recycling and Recovery (CalRecycle) with administering a payment system for collectors/recyclers to cover the average costs of recovering/recycling CEW.
- Authorizes the Department of Toxic Substances Control (DTSC) to develop regulations for the proper management (collection, storage, and recycling) of discarded electronic devices.
- Requires DTSC to adopt regulations, consistent with the European Union's Restriction of Hazardous Substances (RoHS) directive, limiting the concentration of hazardous metals in covered electronic devices offered for sale in California.
- Establishes certain manufacturer responsibilities: consumer information, brand labeling, annual reporting, product design for recycling, and reduction of hazardous materials.

Covered Electronic Devices

CEDs are video display devices determined by the Department of Toxic Substances Control (DTSC) to exhibit hazardous characteristics when disposed. Covered devices must have screens greater than four inches on the diagonal. Unless excluded by PRC 42463(e)(2), current CEDs include:

- Cathode Ray Tube (CRT) devices
- Televisions and computer monitors containing CRTs
- Televisions and computer monitors containing liquid crystal displays (LCDs)
- Laptop computers with LCD screens (including most "tablet" computers)
- Plasma televisions
- Personal portable DVD players with LCD screens

Revenue and Payment Status

CalRecycle has the statutory obligation to adjust the CEW recycling fee to maintain fund solvency.

CalRecycle acted in June 2019 to lower the CEW recycling fee levels to maintain adequate fund balance. This change took effect January 1, 2020.

Annual Total Revenue from CEW Recycling Fees (from Governor's FY 20/21 Budget)

FY 2018/19 ~ \$90M / FY 2019/20 ~ \$80M / FY 2020/21 ~ \$78M

- Consumers pay a recycling fee to retailers at time of new device purchase based on the screen size.
- In June 2019, CalRecycle acted to adjust the CEW recycling fee to maintain adequate fund balance. Effective January 1, 2020, the fee is \$4, \$5, and \$6, depending on screen size.
- Retailers remit collected fees to the CDTFA and retain 3% for administrative costs.
- Manufacturers are required to notify retailers regarding which products are subject to the fee.

CEW Recycling Program Participants (as of March 2021)

Approved Collectors: ~294

Approved Recyclers: ~21

- Growth in California's electronic waste collection and recycling infrastructure has been fostered by the Act and the CEW Recycling Program.
- Voluntary participation includes a diverse group: non-profit organizations, solid waste management companies, local governments, and traditional e-waste collection and recycling businesses.
- DTSC inspections of recycling facilities and compliance with environmental standards are required for participant approval and eligibility to receive payments.
- The infrastructure to recover CEW also recovers substantial quantities of miscellaneous electronic waste, the handling of which is not directly funded by the CEW Recycling Program.

CalRecycle pays approved recyclers the combined recovery and recycling payment; approved recyclers are required to pay collectors the recovery payment. Based on industry cost data reported by approved collectors and recyclers, analyses of these data, and industry trends, the CEW Recycling Program increased the payment rates in 2020. Effective July 1, 2020, the recovery rate for all CEW due to collectors is \$0.26 per pound. The combined recovery and recycling payment rate for CRT CEW is \$0.66 per pound and for non-CRT CEW is \$0.87 per pound.

Year to Year Comparison (based on claim reporting month):*

2005 total 216 claims submitted: \$ 31 M (~ 64 M pounds)
2006 total 283 claims submitted: \$ 61 M (~ 127 M pounds)
2007 total 350 claims submitted: \$ 88 M (~ 184 M pounds)
2008 total 403 claims submitted: \$ 96 M (~ 220 M pounds)
2009 total 300 claims submitted: \$ 72 M (~ 185 M pounds)
2010 total 251 claims submitted; \$ 75 M (~ 194 M pounds)
2011 total 297 claims submitted; \$ 77 M (~ 198 M pounds)
2012 total 314 claims submitted; \$ 83 M (~ 212 M pounds)
2013 total 274 claims submitted; \$ 79 M (~ 202 M pounds)
2014 total 269 claims submitted; \$ 77 M (~ 183 M pounds)
2015 total 242 claims submitted; \$ 77 M (~ 175 M pounds)
2016 total 208 claims submitted; \$ 72 M (~ 153 M pounds)
2017 total 222 claims submitted; \$ 62 M (~ 128 M pounds)
2018 total 229 claims submitted; \$ 51 M (~ 101 M pounds)
2019 total 240 claims submitted; \$ 47 M (~ 90 M pounds)
2020 total 206 claims submitted: \$ 50 M (~ 74 M pounds)

2021 total 49 claims submitted: \$ 15 M (~ 19 M pounds)

*Please note that as of January 2018, the tracking of these values was standardized to remove claims that were rejected due to regulatory deficiencies or claimant request.

Payment Statistics 2005 through March 2021

- Approximately 4,359 claims submitted by recyclers for payment.
- Approximately \$1.1 billion (representing approximately 2.5 billion pounds of recycled CEW) have been claimed through the CEW Recycling Program since January 2005

CalRecycle has annually denied between 1% and 12% of moneys claimed in the CEW Recycling Program due to non-compliant or "significantly inconsistent" documentation (see 14 CCR 18660.30...). Total payment adjustments from the start of the program through March 2021 is about \$29 million (~ 2.6% of claimed).

Compliance Assurance and Fraud Prevention

- CalRecycle works closely with DTSC to ensure material handling compliance. The departments have a Memorandum of Understanding that delineates cooperation on regulatory and enforcement responsibilities.
- CalRecycle has statutory authority to impose administrative civil liabilities (penalties) against any person for false statements or representations made in documentation transferred or maintained for the purpose of compliance with the Electronic Waste Recycling Act and associated regulations, including those related to the CEW recycling program.
- CalRecycle maintains an Interagency Agreement with the Department of Food and Agriculture's Weighmaster program to ensure accurate and legal measurements within the electronics recycling industry.
- CalRecycle has entered into a Memorandum of Understanding with the U.S. Department of Labor, Wage and Hour Division to promote and enforce compliance with labor laws within the electronics recycling industry.

Current Challenges

- CalRecycle must ensure that payment is made in a timely manner only for eligible and properly documented CEW; specifically, through complete and verifiable payment claims, including applicable source, collection, transfer, processing, and residual disposition documentation.
- The program must accommodate continued use (resale, reuse) as a possible destination for recovered CEW, but only pay for cancelled (dismantled) CEW.
- The program must allow for certain instances of otherwise eligible (California-sourced) CEWs resulting from illegal abandonment and load check activities to enter the payment system while simultaneously not creating a portal for fraudulent activities.
- The use of "handlers" outside the CEW Recycling Program by approved recyclers and collectors exposes participants to increased risk of faulty and/or falsified collection documentation.

Uncertain Markets for Residual CRT Glass

- Residual CRT glass must be managed as a universal waste or as a hazardous waste depending on ultimate disposition of the glass; the burden of compliance is on the California CRT glass handler.
- Historical markets for residual CRT glass have largely disappeared or have been disrupted; new markets are unclear and involve more complex regulatory consideration.
- Incidents of residual CRT abandonment elsewhere in USA further raise market concerns.
- New recycling dispositions should be explored but must be vetted; meanwhile, well-regulated disposal has become a last choice option for residuals without feasible markets.

Costs of Managing Non-CRT CEW

- Program is seeing an increase in volumes of non-CRT devices being cancelled and claimed for payment, which have different recycling economics.
- In the first 6 years of the program, less than 1% (by weight) of CEW claimed were non-CRT devices.
- In 2013, non-CRT exceeded 2% for the first time and the volume has grown an average of 30% each year and 2017 made up about 14% (18M pounds) of the volume of CEW claimed. In 2019, non-CRT made up about 31% (27.6M pounds) of the volume of CEW claimed. In 2020, non-CRT made up about 41% (30.5M pounds) of the volume of CEW claimed. For January through March of 2021, non-CRT has made up about 51% (9.8M pounds).
- In 2018, CalRecycle promulgated emergency regulations to bifurcate the combined recovery and recycling payment rate made to approved recyclers to establish separate rates for CRT and non-CRT CEW.

The Future of Electronic Waste Management in California?

- Mixed e-waste (non-CEW) volumes are substantial and in aggregate have nominal value.
- CEW collectors and recyclers are handling more complex and lower value materials.
- Will the current model that has worked well for over a decade be as effective in the future?
- CalRecycle initiated a project in 2016 to examine current conditions and future options for electronic waste management in California and engage stakeholders in exploring how to address future challenges.
- CalRecycle approved policy recommendations in May 2018 regarding [future management of electronic waste in California \(PDF\)](#).

<https://www2.calrecycle.ca.gov/PublicNotices/Documents/11291>

Other Program Implementation Activities

Regulations:

- In June 2019, CalRecycle determined to adjust the CEW recycling fee from the current rates of \$5, \$6, and \$7 per device (depending on screen size) to \$4, \$5, and \$6. The fee adjustments were approved by the Office of Administrative Law (OAL) in October 2019 and took effect January 1, 2020.
- In March 2017, CalRecycle enacted emergency regulations that modify requirements for the Designated Approved Collector provision of the CEW recycling program. This provision allows Local Governments to designate an approved collector to act on its behalf to provide CEW collection services. The emergency regulations were readopted and approved by OAL in March 2019. CalRecycle initiated the formal rulemaking process to make these regulations permanent in October 2019. The regulations were approved by OAL in July 2020 and became effective on October 1, 2020.
- In May 2018, CalRecycle enacted emergency regulations that establish the structure to have bifurcated payment rates for CRT CEW and non-CRT CEW. The emergency regulations were readopted and approved by OAL in March 2020.
- In October 2018, DTSC finalized the emergency regulations for CRT and CRT glass disposition options that establish pathways for proper disposal, as well as more stringent disposition documentation.
- In August 2015, CalRecycle enacted emergency regulations to address changes in CRT market conditions and CRT management rules promulgated by DTSC; CEW recyclers may pursue all otherwise legal dispositions for residual CRTs/CRT glass derived from claimed CEW. CalRecycle initiated the formal rulemaking process to make these regulations permanent in August 2017. The regulations were approved by OAL in September 2018 and became effective on October 1, 2018.

- In October 2015, CalRecycle enacted emergency regulations to implement administrative authorities to impose civil liabilities (penalties) on persons who make false statements in documents maintained or transmitted for compliance purposes relative to the Act (PRC 42474(d)). CalRecycle initiated the formal rulemaking process to make these regulations permanent in August 2017. The regulations were approved by OAL in September 2018 and became effective on October 1, 2018.
- In addition to finalizing the two emergency regulations packages that address the assessing of civil liabilities and the management of residual CRTs/CRT glass, CalRecycle also amended various other aspects of the regulations governing the CEW recycling program. The regulations were approved by OAL in September 2018 and became effective on October 1, 2018.

Recent Legislation

- For more legislative information, see the [California Legislative information page](http://www.leginfo.ca.gov).
www.leginfo.ca.gov

Annual Net Cost Reporting

- Program participants must report annually on costs to handle and process CEW. This information is used to inform CalRecycle in fulfilling its obligation to adjust payment rates pursuant to PRC 42477 and 42478.
- Net Cost Reports must be submitted by all CEW program participants on or before March 1.
- Failure to submit a Net Cost Report is a leading cause of participant approval revocation.

Other States and Federal Government

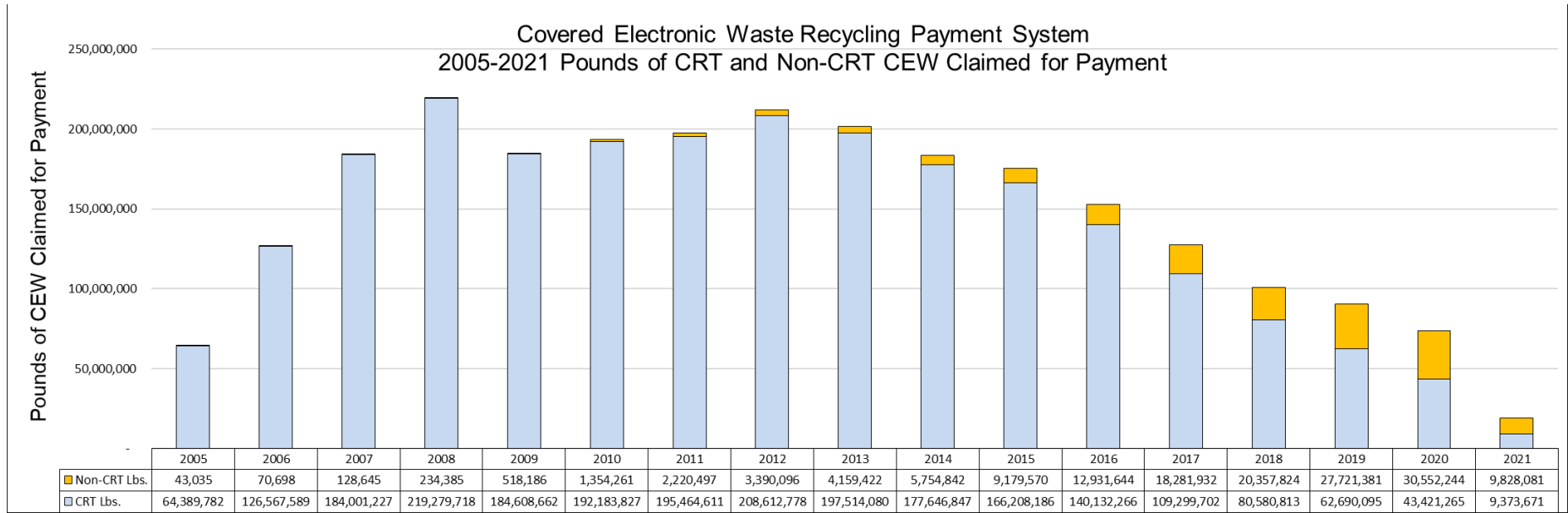
California is monitoring activity on the national level. Approximately two dozen states have passed legislation, all taking more of a producer responsibility approach. A large CEW Recycling Program challenge – ensuring payment only for California material – would be minimized or eliminated by a national-level program. However, any national system should provide cost relief to local governments and not contradict the hazardous waste/universal waste management standards adopted by DTSC. The Act specifies conditions under which a national program would preempt the Act (PRC 42485 (a)).

Outreach and Other Resources

- For current program actions and information, view the E-Waste newsletter archives: [Aug 2004-present](https://www2.calrecycle.ca.gov/Listservs/Archive/10)). <https://www2.calrecycle.ca.gov/Listservs/Archive/10>
- [CalRecycle maintains a public oriented web address](http://www.calrecycle.ca.gov/electronics) to inform the public on environmental matters associated with the management of electronic waste, including a directory of recycling opportunities throughout California. www.calrecycle.ca.gov/electronics
- [The California Department of Tax and Fee Administration website](http://www.cdtfa.ca.gov/taxes-and-fees/electronic_waste_recycling_fee.htm) contains frequently asked questions, registration information and registration forms. www.cdtfa.ca.gov/taxes-and-fees/electronic_waste_recycling_fee.htm
- [The Department of Toxics Substances Control website](https://dtsc.ca.gov/electronic-hazardous-waste/) contains information on covered devices, hazardous waste management standards, and regulatory requirements. <https://dtsc.ca.gov/electronic-hazardous-waste/>

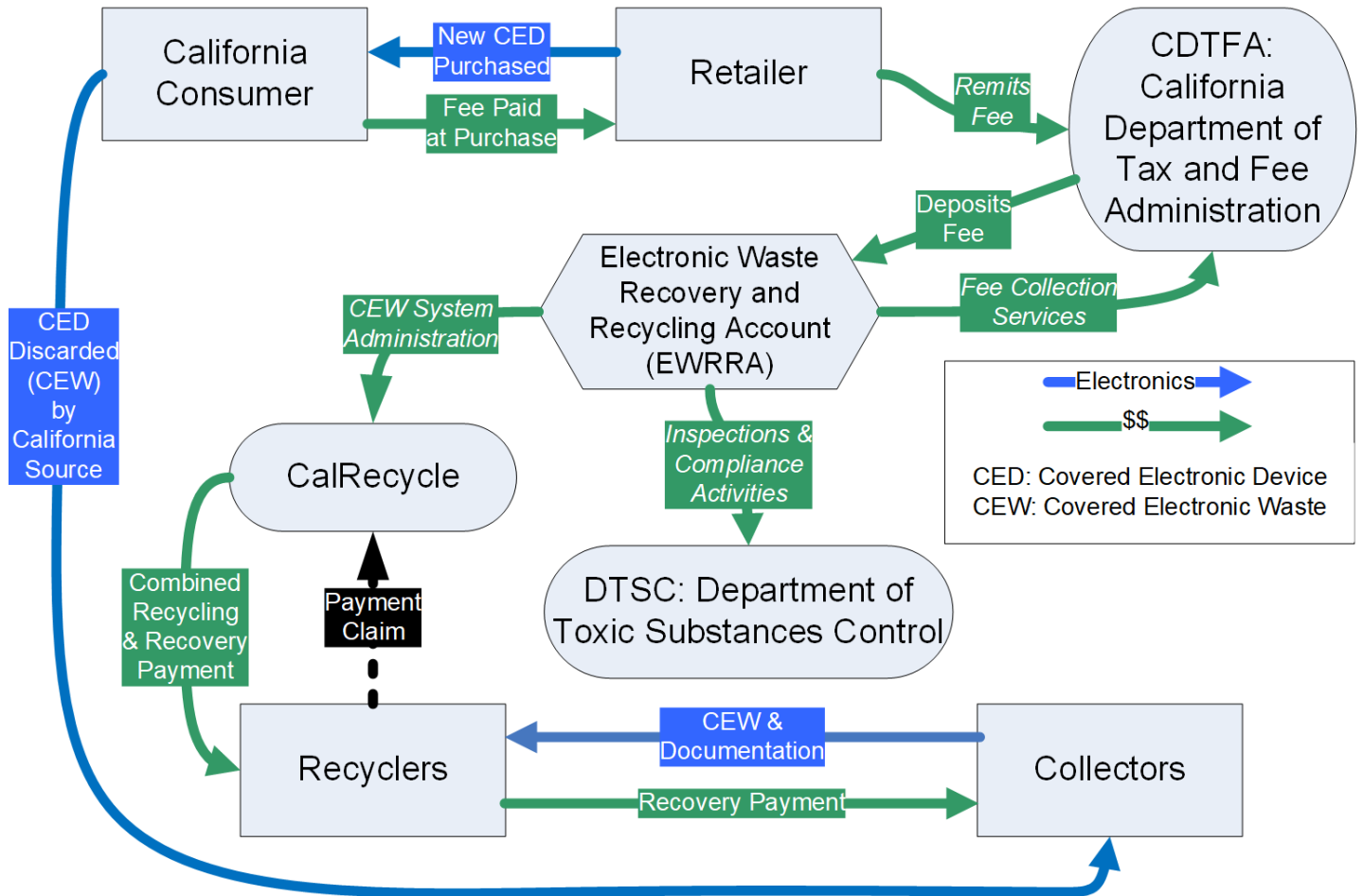
*Comments on Covered Electronic Waste Recycling Payment System Chart (Next Page): The depiction of claim volumes in the chart reflects the evolution of the program since its inception in January 2005 through March 2021. Factors affecting the fluctuating volumes in the program include infrastructure development, the digital television broadcast transition in 2009, CRT glass market disruptions, and legacy stockpile depletion. Questions concerning this document may be directed to ewaste@calrecycle.ca.gov.

2005-2021 Pounds of CRT and Non-CRT CEW Claimed for Payment



Covered Electronic Waste Flowchart

Flowchart of Material and Funds within the State of California's
Covered Electronic Waste Recycling Program



Appendix 1

Year	CRT Pounds Claimed	Non-CRT Pounds Claimed
2005	64,389,782	43,035
2006	126,567,589	70,698
2007	184,001,227	128,645
2008	219,279,718	234,385
2009	184,608,662	518,186
2010	192,183,827	1,354,261
2011	195,464,611	2,220,497
2012	208,612,778	3,390,096
2013	197,514,080	4,159,422
2014	177,646,847	5,754,842
2015	166,208,186	9,179,570
2016	140,132,266	12,931,644
2017	109,299,702	18,281,932
2018	80,580,813	20,357,824
2019	62,387,602	27,921,106
2020	43,421,265	30,463,119
2021	9,373,671	9,828,081

Appendix 2

When a California consumer buys a CED from a retailer, the consumer pays a recycling fee that funds the CEW Recycling Program. The retailer collects those fees and remits them to CDTFA. CDTFA deposits the funds into the EWRRA. Approved recyclers and collectors of CEW subsequently receive payments to offset the average net cost of appropriate recovery, processing, and recycling activities. CalRecycle pays approved recyclers the combined recycling and recovery payment, and recyclers pass the recovery payment on to the approved collectors who recovered the CEW. CalRecycle works closely with the Department of Toxic Substances Control (DTSC), who is responsible for regulating and enforcing the physical management of e-waste. DTSC conducts inspections and compliance activities with recyclers and collectors.