



## **Rulemaking Archives**

### **Covered Electronic Waste Recovery and Recycling Payment Rates**

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On June 28, 2018, the Office of Administrative Law (OAL) approved emergency regulations governing the covered electronic waste recovery and recycling payment rates that were approved by the director of the Department of Resources Recycling and Recovery (CalRecycle) on May 15, 2018. The regulations became effective July 1, 2018.

Visit the following page for Rulemaking Archives 2018 Covered Electronic Waste Recovery and Recycling Payment Rate information.

#### **Description**

Print only filing regulations necessary to maintain CalRecycle's responsibilities under the Electronic Waste Recycling Act of 2003, as amended. The regulations increase the Standard Statewide Combined Recovery and Recycling Payment Rate for non-CRT CEW from 49 cents per pound to 60 cents per pound.

#### **Affected Regulatory Code Sections**

California Code of Regulations, Title 14, Division 7, Chapter 8.2, Sections 18660.25 and 18660.34.

#### **Stakeholder Input**

Stakeholders had the opportunity to provide input in response to past listserv notices as well as during the May 7, 2018 workshop, the May 15, 2018 monthly meeting, and a prior April 17, 2018 workshop.

#### **Rulemaking Documents**

Documents which were relied upon by CalRecycle in developing the regulations.

1. Request For Approval, signed May 15, 2018
2. Considerations Document (Attachment 1)
3. Net Cost Report Analysis (Attachment 2)
4. Agenda, CEW Program Stakeholder Workshop, May 7, 2018
5. Recovery and Recycling Payment Rate Considerations Presentation, CEW Program Stakeholder Workshop, May 7, 2018

**State of California  
Office of Administrative Law**

**In re:**  
**Department of Resources Recycling and  
Recovery**

**Regulatory Action:**

**Title 14, California Code of Regulations**

**Adopt sections:**

**Amend sections: 18660.25, 18660.34**

**Repeal sections:**

**NOTICE OF FILING AND PRINTING ONLY**

**Government Code Section 11343.8**

**OAL Matter Number: 2018-0523-01**

**OAL Matter Type: File and Print Only (FP)**

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This file and print action amends the standard statewide covered electronic waste (CEW) recovery and recycling payment rates for non-CRT CEW. This regulation is exempt from the Administrative Procedure Act pursuant to Government Code section 11340.9(g).

OAL filed these regulations with the Secretary of State, and will publish the regulations in the California Code of Regulations.

**Date: June 28, 2018**



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**Mark Storm  
Senior Attorney**

**For: Debra M. Cornez  
Director**

**Original: Scott Smithline, Director  
Copy: Meagan Wilson**

STD. 400 (REV. 01-2013)

OAL FILE NUMBERS	NOTICE FILE NUMBER	REGULATORY ACTION NUMBER	EMERGENCY NUMBER
	Z-	2018-0523-01FP	
For use by Office of Administrative Law (OAL) only			
NOTICE		REGULATIONS	
AGENCY WITH RULEMAKING AUTHORITY Department of Resources Recycling and Recovery (CalRecycle)			AGENCY FILE NUMBER (If any)

**ENDORSED - FILED**  
in the office of the Secretary of State  
of the State of California

JUN 28 2018

1:48pm

2018 MAY 23 P 1:51  
OFFICE OF  
ADMINISTRATIVE LAW

**A. PUBLICATION OF NOTICE (Complete for publication in Notice Register)**

1. SUBJECT OF NOTICE	TITLE(S)	FIRST SECTION AFFECTED	2. REQUESTED PUBLICATION DATE
3. NOTICE TYPE <input type="checkbox"/> Notice re Proposed Regulatory Action <input type="checkbox"/> Other	4. AGENCY CONTACT PERSON	TELEPHONE NUMBER	FAX NUMBER (Optional)
<b>OAL USE ONLY</b>	ACTION ON PROPOSED NOTICE <input type="checkbox"/> Approved as Submitted <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Disapproved/Withdrawn	NOTICE REGISTER NUMBER	PUBLICATION DATE

**B. SUBMISSION OF REGULATIONS (Complete when submitting regulations)**

1a. SUBJECT OF REGULATION(S) Covered Electronic Waste Recovery and Recycling Payment Rates	1b. ALL PREVIOUS RELATED OAL REGULATORY ACTION NUMBER(S)
2. SPECIFY CALIFORNIA CODE OF REGULATIONS TITLE(S) AND SECTION(S) (Including title 26, if toxics related)	
<b>SECTION(S) AFFECTED</b> (List all section number(s) individually. Attach additional sheet if needed.)	ADOPT
	AMEND 18660.25, 18660.34
TITLE(S) 14	REPEAL
3. TYPE OF FILING	
<input type="checkbox"/> Regular Rulemaking (Gov. Code §11346)	<input type="checkbox"/> Certificate of Compliance: The agency officer named below certifies that this agency complied with the provisions of Gov. Code §§11346.2-11347.3 either before the emergency regulation was adopted or within the time period required by statute.
<input type="checkbox"/> Resubmittal of disapproved or withdrawn nonemergency filing (Gov. Code §§11349.3, 11349.4)	<input type="checkbox"/> Emergency Readopt (Gov. Code, §11346.1(h))
<input type="checkbox"/> Emergency (Gov. Code, §11346.1(b))	<input type="checkbox"/> Resubmittal of disapproved or withdrawn emergency filing (Gov. Code, §11346.1)
	<input checked="" type="checkbox"/> File & Print
	<input type="checkbox"/> Other (Specify) _____
	<input type="checkbox"/> Changes Without Regulatory Effect (Cal. Code Regs., title 1, §100)
	<input type="checkbox"/> Print Only
4. ALL BEGINNING AND ENDING DATES OF AVAILABILITY OF MODIFIED REGULATIONS AND/OR MATERIAL ADDED TO THE RULEMAKING FILE (Cal. Code Regs. title 1, §44 and Gov. Code §11347.1)	
5. EFFECTIVE DATE OF CHANGES (Gov. Code, §§ 11343.4, 11346.1(d); Cal. Code Regs., title 1, §100)	
<input type="checkbox"/> Effective January 1, April 1, July 1, or October 1 (Gov. Code §11343.4(a))	<input type="checkbox"/> Effective on filing with Secretary of State
<input type="checkbox"/> \$100 Changes Without Regulatory Effect	<input checked="" type="checkbox"/> Effective other (Specify) <b>July 1, 2018</b>
6. CHECK IF THESE REGULATIONS REQUIRE NOTICE TO, OR REVIEW, CONSULTATION, APPROVAL OR CONCURRENCE BY, ANOTHER AGENCY OR ENTITY	
<input type="checkbox"/> Department of Finance (Form STD. 399) (SAM §6660)	<input type="checkbox"/> Fair Political Practices Commission
<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> State Fire Marshal
7. CONTACT PERSON Meagan Wilson	TELEPHONE NUMBER (916) 341-6077
FAX NUMBER (Optional)	E-MAIL ADDRESS (Optional) Meagan.Wilson@calrecycle.ca.gov

8. I certify that the attached copy of the regulation(s) is a true and correct copy of the regulation(s) identified on this form, that the information specified on this form is true and correct, and that I am the head of the agency taking this action, or a designee of the head of the agency, and am authorized to make this certification.

SIGNATURE OF AGENCY HEAD OR DESIGNEE <i>Elliot W. Block</i>	DATE 5/15/18
TYPED NAME AND TITLE OF SIGNATORY Elliot Block, Chief Counsel	

For use by Office of Administrative Law (OAL) only

AUTHORIZED FOR FILING AND PRINTING

JUN 28 2018

Office of Administrative Law

**Proposed Revised Regulatory Language  
to Adjust the Covered Electronic Waste Standard Statewide Combined Recovery and Recycling  
Payment Rate**

**California Code of Regulations -- Title 14 Natural Resources  
Division 7 Department of Resources Recycling and Recovery (CalRecycle)  
Chapter 8.2 Electronic Waste Recovery and Recycling**

**Article 2.3. Electronic Waste Payment System – Recycling Payment Claims**

**§ 18660.25. Additional Requirements for Recycling Payment Claims to Demonstrate Cancellation of Non-CRT-Containing CEWs.**

(a) In addition to the general information required in Section 18660.22 of this Chapter, an approved recycler shall include the information in this Section to claim recycling payments for canceling non-CRT-containing CEWs through dismantling to a bare panel or crushing/shredding of the entire CEW as specified in Section 18660.32 of this Chapter.

(b) An approved recycler shall base recycling payment claims on the weight of the cancelled non-CRT-containing CEWs.

(c) An approved recycler shall submit a recycling payment claim within 45 calendar days of the end of a calendar month in which it cancels non-CRT-containing CEWs.

(d) The reporting month for a recycling payment claim pursuant to this Section is the calendar month the cancellation occurs.

(e) An approved recycler shall calculate the payment and include the calculation in a recycling payment claim specific to canceling non-CRT-containing CEWs through dismantling to a bare panel or crushing/shredding of the entire CEW as follows:

(1) The total weight of cancelled non-CRT-containing CEWs for the reporting month from which all treatment residuals specified pursuant to Section 18660.22(c)(1) of this Chapter have been shipped to an end-use destination authorized to receive and further treat those treatment residuals. Note that non-CRT-containing CEWs commingled with other material are ineligible for recycling payment.

(2) The total payment claimed, calculated by multiplying the weight of non-CRT-containing CEWs specified in subsection (e)(1) of this Section by the Standard Statewide Combined Recovery and Recycling Payment Rate.

(3) If the amount in subsection (1) of this Section includes CEWs from outside California or previously cancelled materials, then the recycler shall reduce the payment claim to reflect these corrections by adjusting the weights.

(4) For each cancelled non-CRT-containing CEWs, the recycler shall record and report the manufacturer name, model number, serial number and weight prior to cancellation.

(f) An example calculation for canceling non-CRT-containing CEWs through dismantling to a bare panel or crushing/shredding of the entire CEW is included for illustration purposes as follows:

*The weight of non-CRT-containing CEWs cancelled:* 1000 pounds  
*Times the per pound Standard Statewide combined recovery and recycling payment rate:* X ~~\$0.49~~ \$0.60  
*Equals the payment claim for the reporting period:* ~~= \$490.00~~ = \$600.00 Total Claim

(g) An approved recycler shall attach the following documentation for all shipments of circuit boards from non-CRT-containing CEWs made during the reporting period of a calendar month:

- (1) Shipping reports to end-use destinations, including the names of the shipping recycler and the receiving end-use destination.
- (2) The date of the shipment and the weight of the circuit boards.
- (3) Weight tickets of individual shipments of the circuit boards.
- (4) Verification of post cancellation disposition, including:
  - (A) For shipments by sea, the proof of disposition to an end-use destination shall be the on-board bill of lading.
  - (B) For other shipments, the proof of disposition to an end-use destination shall include a receipt issued by the person receiving the shipment and any applicable bill of lading.
  - (C) For all shipments of non-CRT-containing CEWs circuit boards, a discussion of the ultimate disposition of the material shipped demonstrating that the disposition is not disposal to land, water or air.

(h) In addition to the documentation required in subsection (g), an approved recycler shall attach to the payment claim a description and qualification of the disposition of other treatment residuals derived from cancellation of the non-CRT-containing CEWs, including but not limited to metals, plastics, and fibers.

NOTE: Authority cited: Sections 40502, 42475(b) and 42475.2, Public Resources Code.  
Reference: Sections 42475(a), 42476, 42477, 42478 and 42479, Public Resources Code.

#### **Article 2.4. Electronic Waste Payment System – Cancellation Methods, Recovery Payment Rate, and Combined Recovery and Recycling Payment Rate**

##### **§ 18660.34. Standard Statewide Combined Recovery and Recycling Payment Rate.**

(a) CalRecycle shall pay an approved recycler Standard Statewide Combined Recovery and Recycling Payment Rates for the weight of CRT and non-CRT CEWs cancelled and claimed pursuant to the requirements of this Chapter, which includes a component for recovery costs and a component for recycling costs.

(b) Beginning July 1, 2016~~8~~, the Standard Statewide Combined Recovery and Recycling Payment Rates are:

- (1) \$0.49 per pound for CRT CEW.
- (2) \$0.49~~60~~ per pound for non-CRT CEW.

(c) CalRecycle shall review the Standard Statewide Recovery and Recycling Payment Rate at a public meeting and establish the rate pursuant to Sections 42477 and 42478 of the Public Resources Code.

NOTE: Authority cited: Sections 40502, 42475(b) and 42475.2, Public Resources Code.  
Reference: Sections 42475(a), 42476, 42477, 42478 and 42479, Public Resources Code.

## REQUEST FOR APPROVAL

**To:** **Scott Smithline**  
Director

**From:** **Howard Levenson**  
Deputy Director, Materials Management and Local Assistance Division

**Request Date:** May 9, 2018

**Decision Subject:** Covered Electronic Waste Recovery and Recycling Payment Rates

**Action By:** May 15, 2018

### **Summary of Request:**

The Electronic Waste Recycling Act of 2003 (Public Resources Code 42460, et seq) establishes a financing mechanism to develop an infrastructure to provide convenient recycling opportunities and reduce the inappropriate disposal of certain electronic products discards in California.

Pursuant to PRC 42477 and 42478, CalRecycle has the responsibility to evaluate the standard statewide covered electronic waste (CEW) recovery and recycling payment rates every two years and adjust them if warranted to reflect the average net costs of providing the CEW recovery and recycling services intended by the Act. CalRecycle must act now to determine whether any payment rate adjustments are necessary in order to meet the statutory date of July 1, 2018.

In April 2018, CalRecycle proposed revising the governing regulations to allow for the existing Combined Recovery and Recycling Payment rate to be split into separate payment rates for CRT CEW and non-CRT CEW. Those revised regulations were filed with the Office of Administrative Law (OAL) on May 2, 2018 as Emergency Regulations, and at the time of the posting of this document are expected to be approved by the end of the month. The proposed regulatory changes discussed in this document will be filed as a print only filing with OAL after the approval of the aforementioned changes.

Staff is proposing that the Standard Statewide Combined Recovery and Recycling Payment Rate for non-CRT CEW be increased from 49 cents per pound to 60 cents per pound.

### **Recommendation:**

Based on industry cost data reported by participating collectors and recyclers, along with staff analysis of these data, and taking into consideration that there will inevitably be market fluctuations that impact future costs and revenues, staff recommends that:

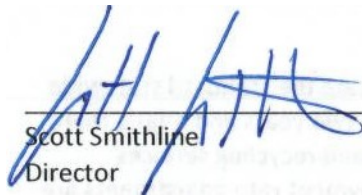
- The Standard Statewide Recovery Payment Rate, as delineated in 14 CCR 18660 .33, should remain 19 cents per pound for CEW.
- The Standard Statewide Combined Recovery and Recycling Payment Rate, as delineated in the currently proposed emergency regulations, 14 CCR 18660.34(b)(1), should remain 49 cents per pound for CRT CEW.
- The Standard Statewide Combined Recovery and Recycling Payment Rate, as delineated in the currently proposed emergency regulations, 14 CCR 18660.34(b)(2), should be increased from 49 cents per pound to 60 cents per pound for non-CRT CEW.

- This payment rate change be made immediately, effective July 1, 2018, as applicable to the CEW transfer and/or claim conditions contained in existing associated regulation.
- The rate increase and effective date be achieved through the applicable edits and amendments to the currently proposed emergency regulations, Title 14 of the California Code of Regulation, as outlined in Attachment 3 of this document.

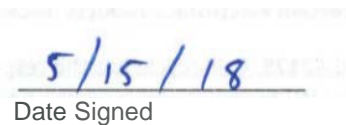
Upon approval of this request, staff will work with the Legal Office to make the necessary filings with OAL to enact the recommended rate increase.

**Director Action:**

On the basis of the information and analysis in this Request for Approval, I hereby approve the staff recommendation that the Standard Statewide Combined Recovery and Recycling Payment Rate delineated in 14CCR 18660 .34(b)(2) be increased as specified, working with the Legal Office to make the necessary filings with the Office of Administrative Law, and, in doing so, fulfill CalRecycle's obligations pursuant to PRC 42477 and 42478.



Scott Smithline  
Director



5/15/18  
Date Signed

**Attachments:**

1. Background on CEW Payment Rate Considerations 2018
2. Detail and Context of 2017 Net Cost Report Analysis
3. Proposed Revised Regulatory Language 14 CCR Chap 8.2

## **Background on Covered Electronic Waste Payment Rate Considerations**

### **Introduction**

The Electronic Waste Recycling Act of 2003 (SB 20, Sher), as amended, was a set of targeted approaches within a larger effort to better manage electronic equipment and devices discarded in the state of California. It established a variety of measures intended to develop an infrastructure to provide convenient recycling opportunities, reduce the inappropriate disposal of certain electronic devices, limit the sale of certain hazardous products in the state, and require notification and/or reporting of product sale and waste management activities.

The most publicly visible aspect of the Act is the covered electronic waste (CEW) recovery and recycling payment system, administered by the Department of Resources Recycling and Recovery (CalRecycle), in partnership with the Department of Toxic Substances Control (DTSC) and the California Department of Tax and Fee Administration (CDTAF). This system is funded through a fee paid by consumers of covered electronic devices at the time of retail purchase, and is operated to compensate authorized collectors and recyclers of CEW through standard payment rates designed to offset the average costs of providing recovery and recycling services.

CalRecycle has the responsibility and authority to evaluate the standard statewide CEW recovery and recycling payment rates every two years and to adjust them as warranted to reflect the average net costs of providing the CEW recovery and recycling services intended and prescribed by the Act. The payment rates have been adjusted three times since the program's operational inception: once to reduce the rates in 2008, and twice to raise the rates in 2014 and 2016. Presently, any decision to adjust the payment rates must be made by the statutory deadline of July 1, 2018.

***Based on an analysis of information submitted through required industry reporting, as well as stakeholder additional input, and ongoing monitoring of industry trends, program staff is recommending that the recycling payment rate for non-cathode ray tube (CRT) CEW be increased.***

### **Background Information**

The Electronic Waste Recycling Act of 2003 (Act), established a comprehensive program to finance the end-of-life management of certain (covered) electronic devices. The program is financed through an electronic waste recycling fee paid by consumers at the point of retail sale of new covered devices. These revenues are used to administer the programs established by the Act, including the disbursement of recovery and recycling payments to approved collectors and recyclers of CEW.

CEW are discarded covered electronic devices. Covered electronic devices are defined by statute as video display devices with a screen size greater than four inches that are identified by DTSC after testing determines that they are hazardous when disposed. DTSC must incorporate covered devices in regulation (Title 22, Division 4.5, Chapter 11, Article 5, Appendix X) as well as make ongoing interpretations as new facets and forms of technology are assessed against existing regulation.



Currently, covered electronic devices include:

- CRT-containing devices (including CRT televisions and computer monitors);
- Liquid Crystal Display (LCD)-containing televisions and desktop monitors;
- Laptop computers containing LCD screens;
- Plasma display televisions; and
- Personal DVD players.

The Act charges CalRecycle with principle responsibility for administering the financial aspects of the CEW payment system. This includes establishing a rate of payment for the proper recovery (collection, consolidation and transportation) and recycling (receipt, processing and disposition) of CEW generated by persons in California. The recovery payment rate is currently set in regulation at \$0.19 per pound, and the combined recovery and recycling payment is currently set at \$0.49 per pound for both CRT CEW and non-CRT CEW, effectively setting the recycling payment rates for both CRT CEW and non-CRT CEW at \$0.30 per pound. CalRecycle makes the combined payment to approved recyclers in response to complete and compliant payment claims that document the origin and “cancellation” of eligible CEW. Approved recyclers are required to make the recovery payment within certain timeframes to approved collectors for all eligible and properly documented CEW transferred from the collector to the recycler. In April 2018, CalRecycle proposed revising the governing regulations to allow for the existing combined recovery and recycling payment rate to be split into separate payment rates for CRT CEW and non-CRT CEW. Those revised regulations were filed with the Office of Administrative Law (OAL) on May 2, 2018 as Emergency Regulations and at the time of the posting of this document those revised regulations are expected to be approved by the end of the month. The proposed regulatory changes discussed in this document will be filed as a print only filing with OAL after the approval of the aforementioned changes.

### **CEW Program Dynamics**

Historically, the majority of the CEW material entering into the payment system has been CRTs. CRTs remain the predominant stream but non-CRTs volumes are increasing, becoming a more significant portion of the stream. Non-CRTs volumes have grown from 1% by weight in 2011, to 5% by weight in 2015, and 14% by weight in 2017.

The management of non-CRT CEW poses numerous challenges to the recycling industry. Non-CRTs are more difficult to dismantle because they require longer processing times and they often have less intrinsic material value than CRTs. In addition, they contain residuals that are fully regulated hazardous waste that entail high disposal costs (e.g., plasma panels) or that require special handling (e.g., fluorescent lamps). As non-CRTs are lighter and CEW recycling payments are weight based, recyclers are paid less for these devices although they are more costly to manage. Hence, the single recycling payment rate that CalRecycle established at the inception of the CEW recycling program appeared not to be adequate for non-CRTs.

CalRecycle recognizes these challenges and has proposed to split the existing CEW recycling payment rate to allow for multiple recycling payment rates: one payment rate for CRT CEW and another payment rate for non-CRT CEW. The proposed regulations establish the regulatory structure necessary to accommodate a differential recycling payment rate for non-CRTs.

Over the course of several years, program staff has requested industry input through Annual Net Cost reporting to gain an understanding of the specific costs and revenues associated with recycling non-CRT CEW. In 2017, staff embarked on a targeted outreach effort to recyclers that process non-CRT CEW to learn more about non-CRT operations.

### **Statutory Authority to Adjust Payment Rates**

The recovery and recycling payment rates were established at the outset of the CEW program through a combination of statute and emergency regulation. Initial rates were set through market research, stakeholder input, and California Integrated Waste Management Board (CIWMB, the predecessor of CalRecycle) consideration. They remained unchanged from January 1, 2005, when eligible recovery and recycling activities began, until July 2008. At that point, the CIWMB reconsidered the payment rates and determined that a reduction from a combined \$0.48 per pound to a combined \$0.39 was necessary to better reflect industry's costs. Subsequently the combined rate was raised to \$0.44 per pound in 2014 and to \$0.49 per pound in 2016. CalRecycle, as the successor to the CIWMB's obligations, has the authority and responsibility to revisit and establish new payment rates, as and if warranted, every two years. Pursuant to statute, CalRecycle must make any adjustment decisions on or before July 1, 2018.

Any adjustment to the recovery and/or recycling payment rates will impact the pace at which the fund is expended and will thus affect the long-term solvency of the program. However, the Act dictates that adjustment of the payment rates be guided by the average net cost of collectors and recyclers providing the services that fulfill the intent of the Act, not as a means to budget the fund. Specifically, the following sections of the Public Resources Code (PRC) will guide CalRecycle's actions:

*"PRC 42477. (a) On July 1, 2004, or as specified otherwise in Section 25214.10.1 of the Health and Safety Code, and on July 1 every two years thereafter, the board (CalRecycle) in collaboration with the department (DTSC) shall establish an electronic waste recovery payment schedule for covered electronic wastes generated in this state to cover the net cost for an authorized collector to operate a free and convenient system for collecting, consolidating and transporting covered electronic wastes generated in this state...."*

*"PRC 42478. (a) Except as provided in subdivision (b), on July 1, 2004, or as specified otherwise in Section 25214.10.1 of the Health and Safety Code, and on July 1 every two years thereafter, the board (CalRecycle), in collaboration with the department (DTSC), shall establish a covered electronic waste recycling payment schedule for covered electronic wastes generated in this state to cover the average net cost for an electronic waste recycler to receive, process, and recycle each major category, as determined by the board, of covered electronic waste received from an authorized collector...."*

### **Collaboration with DTSC**

As noted in the above statutory citations, CalRecycle is required to make any adjustments to the recovery and/or recycling payment rates in collaboration with DTSC. This collaboration has been accomplished through ongoing coordination and joint implementation of the Act's provisions. Specifically, CalRecycle program staff communicates regularly with DTSC regulatory and compliance staff to discuss program progress and challenges, to ensure participant compliance, and to align programmatic efforts.

Public Resources Code (PRC) 42474.5 empowers DTSC to enforce all aspects of the Act and its implementation using DTSC's hazardous waste management authority. Furthermore, PRC 42476(f)(2) states that CalRecycle may pay an electronic waste recycling and/or recovery payment only if "*...The covered electronic waste, including any residuals from the processing of the waste, is handled in compliance with all applicable statutes and regulations,*" many of which fall under the jurisdiction of DTSC.

In October 2012, DTSC enacted emergency regulations that adjusted conditions of authorization within universal waste rules governing the management of discarded CRTs. These rules were readopted in September 2014 and September 2016. This action was in response to both changing conditions in the market for residual CRT glass as well as further consideration of appropriate material management options. CRT glass management is presently a significant cost concern for CEW recyclers. The economic impact of this rule change has been significant. As traditional CRT glass recycling markets have faded, disposal has become the predominant option available for approved recyclers. Currently, majority of CRT glass generated in California is disposed to landfill.

### **Net Cost Reports Inform Payment Rate Considerations**

To inform the evaluation of payment rates, regulations governing the CEW payment system allow CalRecycle to require that approved collectors and recyclers submit annual Net Cost Reports documenting revenues and costs incurred during the management of CEW within the previous calendar year. The latest cycle of reports was due to CalRecycle on or before March 1, 2018.

Specific regulatory language relating to the Net Cost Report can be found in Title 14 of the California Code of Regulations (CCR) section 18660.10. This regulation provides the context for the Net Cost Report requirement, specifically:

*"(a) To adjust the statewide recovery and recycling payment rates, establish future payment schedules and adjust the consumer fees, (CalRecycle) shall periodically update information concerning the net costs of CEW recovery and CEW recycling."*

Given that the nature of participating organizations varies considerably based on size, location, business model, target customer base, scope of materials handled, available markets, and other factors, there is a substantial range of costs and revenues reported. This is to be expected. The industry being fostered by the CEW payment system is well established yet continues to evolve as the collection infrastructure evolves, recycling processes are optimized, markets for derived residuals fluctuate, and as the CEW payment system itself influences how materials flow and business decisions are made. However, the vagaries of self-reporting also suggest that net cost information be considered carefully and in context.

### **Net Cost Report Validation**

For several years CalRecycle's electronic waste recycling program retained the services of the Department of Finance (DOF) Office of State Audits and Evaluations to review the supporting documentation associated with a sampling of submitted Net Cost Reports. This review, conducted onsite at the location of the selected participants, was intended to assess whether the revenues and costs reported were substantiated (validated) by available documentation.

The validation exercise was not a standard audit. It involved a records review using procedures agreed upon ahead of time to standardize the outcome. The aim of the exercise was to determine the general accuracy and reliability of the data submitted as part of the Net Cost Report requirement. Validation subjects were selected by program staff on the general grounds that they represent a range of participant sizes and operational models.

Several previous years' Net Cost Report validation exercises made note of vulnerabilities in the reporting process, including:

- A potential to under-report revenue derived from residual sales
- A potential for related businesses to inaccurately report revenues and/or costs
- The need for more specific guidance on report preparation, especially in the area of cost allocation

As a result, CalRecycle has continuously updated and refined its approach to each reporting cycle. This has included:

- Report guidance material to clarify that generally accepted accounting methods should be used in preparation of reports
- Establishment of online reporting capabilities to ease calculations and reduce errors
- Reminders to participants that the submittal of a fraudulent report would be considered a prohibited activity

CalRecycle no longer engages DOF for an annual net cost validation exercise, and instead relies on the ongoing audit examinations conducted by CalRecycle's own internal Audits Office to assess the general accuracy of historically submitted Net Cost Reports. Not unlike DOF's finding before them, the Audits Office's work finds varying degrees of substantiation reflected in CEW program participants' Net Cost Reports. The uncertainty of any given report's accuracy is factored into program staff's consideration of available information.

## **Findings**

Findings from the Net Cost Reports covering recovery and recycling operations conducted in 2005 and 2006 indicated that initial recovery and recycling payment rates were more than sufficient to cover the reported costs of a majority of program participants. A continuing trend of lowering net costs was identified in the reports covering 2007, arguing strongly for the reduction in payment rates that occurred in 2008. Subsequent years' reporting argued for the payment rates to remain steady until 2014, at which point CalRecycle determined that a rate increase was warranted. Net Cost Reports covering operational year 2015 argued for the recovery and recycling payment rates to be increased.

An examination of Net Cost Reports covering operational year 2017 is detailed and summarized in Attachment 2. Once egregious outlier data are excluded from weighted average calculations, reported net costs per pound for 2017 appear to have increased modestly when compared to the costs reported over the last several years. This year, six recyclers voluntarily provided CalRecycle separate net cost information for processing CRT CEW

and non-CRT CEW. The analysis conducted by CalRecycle indicates that the current recycling payment rate for CRT CEW is sufficient, while the non-CRT CEW recycling payment rate requires a significant increase in order to cover the average net cost.

### **Future Uncertainties**

The data contained in the annually required Net Cost Reports is a snapshot of the past. Given the timing of reporting cycles, program staff relies largely on data that reflects operating conditions that may differ from current conditions when making any recommendation regarding payment rates. An examination of past trends in factors that affect costs and revenues reveals that the one certainty is change. The potential exists for substantial changes to occur at any time in costs such as labor, transportation, facilities, and low-value residual material disposition, as well as in revenues derived from commodities such as recovered metals, plastics, and components.

By weight, CRT glass is the most significant portion of the treatment residuals derived from the cancellation of CEW. CRT glass has historically been used as a feedstock in the manufacturing of new CRT devices, or can be a feedstock to primary or secondary lead smelting, wherein the silica acts as a flux to protect furnaces and some lead in the glass can be recovered. In general these are fairly low-value uses, with the material preparation costs typically exceeding the commodity value of the CRT glass. There are a limited number of destinations seeking to use CRT glass as a smelter feedstock, and the last CRT to CRT glass manufacturer appears to no longer accept material.

The availability of CRT glass disposition options may be the most significant uncertainty for current CEW recyclers and any disruption can have profound impacts. Similarly, hardships to the recycling industry could have serious upstream implications to CEW collectors.

Another uncertainty to note is the evolving mix of technologies being recovered and recycled with the CEW program. The predominant CRT devices are slowly giving way to increasing amounts of flat panel displays. It is suspected that that the challenge of recovering the increasingly available, and substantially lighter, non-CRT technologies will continue to impact CEW recovery dynamics. The separate challenge of identifying appropriate dispositions for regulated treatment residuals and managing the costs of recycling non-CRT CEW may be even more significant.

### **Conclusions and Recommendations**

Data from the most recent Net Cost Report, which is a reflection of the CEW recovery and recycling industry's costs during 2017, suggest that an increase is warranted for non-CRT CEW, as the average net cost of recycling non-CRT CEW is significantly higher than the existing recycling payment rate. The data also shows that the existing recycling payment rate is sufficient to cover the average net cost of recycling CRT CEW. Furthermore, the data shows that the recovery costs are slightly higher than the levels reported in 2015. This is admittedly a look into the recent past and not necessarily indicative of the future costs that the industry will incur; however, CalRecycle has limited ability to predict the future beyond generalities.

Based on industry cost information and associated evaluation, program staff recommends that the recycling payment rate for non-CRT CEW be increased as follows:

***The Standard Statewide Combined Recovery and Recycling Payment Rate for non-CRT CEW, as delineated in the currently proposed emergency regulations, 14 CCR 18660.34(b)(2), should be increased from 49 cents per pound to 60 cents per pound.***

Staff further recommends that this payment rate change be made immediately, effective July 1, 2018, as applicable to the compliant CEW transfer and/or claim conditions contained in existing associated regulations.

Staff also recommends that the recycling payment rate for CRT CEW be maintained as follows:

***The Standard Statewide Combined Recovery and Recycling Payment Rate, as delineated in the currently proposed emergency regulations, 14 CCR 18660.34(b)(1), should remain 49 cents per pound.***

Staff further recommends that the recovery payment rate for CEW be maintained as follows:

***The Standard Statewide Recovery Payment Rate, as delineated in 14 CCR 18660.33, should remain 19 cents per pound.***

There is much potential for continued innovation in CEW collection models, and for increased efficiency in the transactions between collectors and recyclers. The elective practice of recyclers paying collectors more than the required recovery payment rate has continued. And some collectors are known to be paying sources or interim handlers to secure quantities of CEW. This practice does not appear to be anticipated by the intent of the Act, which was simply to develop and provide a cost-free and convenient recycling infrastructure. The practice does raise questions about the fundamental dynamics of the CEW recycling system model and whether costs are necessarily contained by market forces seeking increased profit, or whether overall system costs expand to consume available payments.

### **Regulatory Implications**

If staff's recommendation to adjust the recycling payments rate for non-CRT CEW is approved, staff will make the necessary filings with the Office of Administrative Law to enact the change. Neither a formal nor emergency rulemaking would be required.

### **Contingencies**

Should a future cost or revenue factor change so dramatically as to jeopardize the viability of the CEW recovery and recycling industry, or the fiscal integrity of the payment system, CalRecycle and/or program stakeholders could seek Legislative action to make statutory changes allowing for the payment rates to be revisited more frequently than biennially, either as a one-time action or as an ongoing authority. Such a change would require additional staff resources in order to survey costs and recalculate rates, but it would reduce the perceived risk of setting payments rates for two years when economic volatility is causing anxiety for industry and government interests alike.

## Evaluation of 2017 Net Cost Report Information

### **Overview**

The following tables and discussion are a summary of the evaluation of “as-reported” data contained in 2017 Net Cost Reports, submitted pursuant to Title 14 of the California Code of Regulations (CCR) section 18660.10, pertaining to the management of covered electronic waste (CEW). This evaluation was performed by staff of the CalRecycle electronic waste recycling program.

In general, the tables show the reported net costs per pound of recovering and recycling CEW among system participants when the as-reported costs are examined, revealing weighted average, mean, and median costs. They also show the percentage of participating organizations that reported costs lower than the current standard payment rates – \$0.19/lb. recovery portion and \$0.30/lb. recycling portion – within selected segments of participants. Due to the recently proposed emergency regulations modifying 14 CCR 18660.10 and 18660.34 to accommodate different Standard Statewide Combined Recovery and Recycling payment rates for cathode ray tube (CRT) CEW and non-CRT CEW, a separate analysis of revenues and costs specific to those waste streams was conducted and appears below. Figures are presented in cents per pound unless otherwise noted. Also presented is a comparison and brief discussion of 2017 data with respect to previous years’ summary data.

### **Analysis of Over-All Net Costs**

Program staff compiled “as-reported” 2017 data and examined it in a variety of ways to gain insights into industry costs and inform CEW payment rate considerations. Wide variations in costs were reported by both collectors and recyclers. This is to be expected due to the range of business practices and operational scales within the industry. It is also certain that there are errors contained in the reported costs and revenues in some Net Cost Reports, as evidenced by some reports asserting recovery costs (and, conversely revenues) of several dollars per pound. To compensate for the likelihood of extreme instances of faulty data affecting calculated industry averages, program staff excluded outlier reports showing recovery and recycling net costs in excess of \$1 per pound (this is similar to how program staff has analyzed net cost report data in previous years).

The following tables include:

1. Assessment of submitted 2017 Net Cost Reports (excluding outlier costs)
2. Assessment of 2017 Net Cost Reports from “larger” operations contributing the “top” 50 percent of handled CEW
3. Assessment of 2017 Net Cost Reports from “small” operations contributing the “bottom” 50 percent of handled CEW
4. Assessment of 2017 Net Cost Reports from recyclers regarding revenue and costs for the management of CRT CEW and non-CRT CEW
5. Comparison of calculated Weighted Average Costs 2005 – 2017

(Note: Alternative volume/cost analyses were presented as part of an April 17, 2018, [stakeholder meeting](#).)

Table 1 below shows the analysis of as-reported 2017 net costs for recovering and recycling covered electronic waste using reports submitted by CEW system participants, but excluding those reports that cited net costs for recovery in excess of \$1 per pound. There were 19 collectors that reported recovery costs that exceeded that range. The analysis also excluded nine reports with extremely high revenues and three with grossly inflated

weights. So, of the 360 submitted reports that included data, a total of 31 were deemed outliers and were excluded from the analysis.

The data reveal that on the basis of a simple average (mean), the reported net costs of recyclers were slightly lower than the current recycling portion of the standard statewide combined recovery and recycling payment rate of \$0.30 per pound, while the reported collectors’ net costs were slightly higher than the current \$0.19 per pound recovery portion of the payment rate. The weighted average showed that the recyclers’ costs were lower than the simple mean and slightly below the recycling portion of the standard payment rate, while the collectors’ weighted net costs was more than the simple mean and more than the current recovery payment rate. An examination of the median (mid-point of all reported cost) in Table 1 shows that the payment rates exceeded the reported costs for most collectors (60.2%) and a slightly lower share of recyclers (56.5%).

**Table 1. Analysis of Submitted 2017 Net Cost Reports** (excl. costs +/- \$1 per lb.)

As-Reported 2017 Data		Weighted Average*	Mean	Median	Percentage of Reports Below Standard Payment Rate
Recovery (329)	Revenue	4.4			-
	Cost	24.4			-
	Net Cost	<b>20.0</b>	<b>20.8</b>	<b>15.7</b>	<b>60.2%</b>
Recycling (23)	Revenue	12.8			-
	Cost	39.7			-
	Net Cost	<b>26.9</b>	<b>28.0</b>	<b>29.7</b>	<b>56.5%</b>
<b>Combined Net Costs</b>		<b>46.9</b>	<b>48.8</b>	<b>45.5</b>	-

\* The weighted average reflects the overall industry cost per pound, calculated as if the industry operated as a single organization – i.e., by dividing the collective reported costs and revenues (total net cost) by total pounds recovered and/or recycled by all participants in the study sample.

**A “50/50” Evaluation**

However, this is only one perspective on how to view these data. The following two tables compare the reported net costs by two different sets of participating organizations, each one having handled approximately half of the total amount of CEW recovered or recycled in 2017. The totality of reporting entities were ranked in order of their reported volume of CEW throughput, and then contributing volume was divided roughly in half, assigning a volume to the “larger” contributors and, separately, the “smaller” operations. The terms “larger” and “smaller” are admittedly relative within the context of the overall CEW management industry, with some of the assigned “smaller” entities being substantially larger than the smallest participants. As noted earlier in this paper, a prior analysis based solely on participant individual volumes (e.g., >1 million pounds, >5 million pounds, etc.) was provided in a previous workshop. That assessment yielded similar insights of larger operations reporting higher costs.

Table 2 below shows the analysis of as-reported 2017 net costs for recovering and recycling CEW by those “larger” operations whose combined handling accounted for approximately 50 percent of the total CEW handled. This represents approximately six percent of all reporting collectors and 13 percent of all reporting recyclers, i.e., only a few larger operators account for 50% of the total.

This perspective shows that net costs reported by the larger volume collectors exceed the existing recovery payment rate when analyzed as either the mean or weighted average. This sampling reduced the percentage of



collectors whose reported costs are covered by the standard recovery rate from 60.2% to 52.4%. Strikingly, the higher weighted average costs for larger volume CEW recovery activities appears counterintuitive, since economies of scale typically mean lower marginal costs. The practice of paying sources and/or purchasing accumulated CEW from third-party handlers may be contributing to the apparent higher costs for these larger operations. However, other factors may be in play and it is difficult to further ascertain which ones are applicable to individual businesses.

The sampling of larger volume recycler’s net cost calculations resulted in a weighted average of almost \$0.31 per pound, which is about \$0.08 more per pound as compared to small volume recyclers, with the simple mean and median costs also above the current recycling portion of the payment rate. The percentage of the larger volume recyclers in this segment whose individual reported costs are covered by the recycling portion of the current payment rate is only 33.3%. While representing a small sample size, this suggests that a small number of higher-volume, higher-cost operations may be bending the overall cost curve disproportionately upward for the industry as a whole. It is also important to note the larger volume recyclers are more likely to process both CRT and non-CRT CEWs, which, as will be highlighted below, non-CRT CEWs are more costly to process. In fact more than 60% of recyclers processed and claimed payments for bother material types and those 14 recyclers were responsible for processing almost 89% of the reported volume of CEW.

**Table 2. Analysis of 2017 Net Cost Reports (“large” operations representing top ~50% of CEW)**

As-Reported 2017 Data		Weighted Average	Mean	Median	Percentage of Reports Below Standard Payment Rate
Recovery (21)	Revenue	4.5			-
	Cost	24.6			-
	<b>Net Cost</b>	<b>20.1</b>	<b>20.3</b>	<b>18.9</b>	<b>52.4%</b>
Recycling (3)	Revenue	12.8			-
	Cost	43.7			-
	<b>Net Cost</b>	<b>30.9</b>	<b>30.4</b>	<b>32.6</b>	<b>33.3%</b>
<b>Combined Net Costs</b>		<b>50.1</b>	<b>50.7</b>	<b>51.5</b>	-

Table 3 below shows the analysis of as-reported 2017 net costs for recovering and recycling CEW by those “smaller” operations whose combined handling accounted for approximately 50 percent of the total CEW handled. This represents approximately 94 percent of all reporting collectors and 87 percent of all reporting recyclers.

This perspective shows net costs reported by the smaller volume collectors as being slightly less than the existing recovery payment rate when analyzed as either a median and weighted average, and slightly more when analyzed by the mean. This sampling of participants increased the percentage of the collectors whose reported costs are covered by the standard recovery rate (64.3%), even as compared to all collectors.

The smaller volume recycler net cost calculations for weighted average also generally decreased as compared to all recyclers, with the weighted average, mean, and median calculated as less than the recycling portion of the current payment rate. The percentage of the smaller volume recyclers whose individual reported costs are covered by the recycling portion of the current payment rate moved higher, to 60.0% of this sampling. Unlike the observation above regarding larger volume recyclers handling both types of CEW, smaller recyclers were more likely to focus their CEW processing on the less costly to manage CRT CEW, which likely helped keep their costs lower.

**Table 3. Analysis of 2017 Net Cost Reports (“small” operations representing bottom ~50% of CEW)**

As-Reported 2017 Data		Weighted Average	Mean	Median	Percentage of Reports Below Standard Payment Rate
Recovery (308)	Revenue	4.3			-
	Cost	24.1			-
	Net Cost	19.8	20.9	15.7	64.3%
Recycling (20)	Revenue	12.7			-
	Cost	35.5			-
	Net Cost	22.8	27.6	29.2	60.0%
Combined Net Costs		42.6	48.5	44.9	-

**Assessment of Revenues and Costs for CRT CEW and non-CRT CEW**

Program staff also analyzed data submitted by some recyclers that contained detailed information regarding their revenues and costs specific to CRT and non-CRT CEW processing. Table 4 below contains data regarding the weighted average of recycler revenues, costs, and net costs. Only six recyclers out of the 14 whom claimed non-CRT CEW in the reporting year provided the additional details requested for analyzing the differences between CRT and non-CRT processing. One report from a recycler who solely processed non-CRT CEW in the reporting year brought the total data points for non-CRT CEW processing to seven. Similarly, nine reports submitted by operations that exclusively processed CRT CEW, brought the CRT only data point tally to thirteen. Because current regulations do not specify that net cost reports contain details by CEW category, the submission of the non-CRT specific data was voluntary in this reporting cycle. However, currently proposed regulatory changes will require reporting by CEW category in the future.

As expected, the data reveal that non-CRT CEW generate increased revenues on a per-pound basis, but also incur substantially increased costs. This comports with the anecdotal information provided during informal industry surveys and previous public workshops. The data do indicate that the costs for processing CRT CEW are less than the recycling portion of the current payment, but they do not account yet for current trends in increasing CRT glass management costs and other increases in operation costs. Based on these factors, staff conclude that the current payment rate of 49 cents per pound is sufficient for the management of CRT CEW. In contrast, due to the substantially higher costs for managing non-CRT CEW, staff is recommending the payment rate for this category be set to 60 cents per pound. Staff is not recommending any change to the recovery payment made to collectors.

**Table 4. Analysis of 2017 Net Cost Reports CRT CEW and non-CRT CEW)**

As-Reported 2017 Data		Weighted Average	Mean	Median	Percentage of Reports Below Standard Payment Rate
CRT (13)	Revenue	8.2			-
	Cost	32.4			-
	Net Cost	24.2	26.6	28.6	69.0%
Non-CRT (7)	Revenue	12.7			-
	Cost	50.8			-
	Net Cost	38.1	42.0	51.7	28.6 %

**Historic Perspective**

Table 5 below compares the calculated weighted average net costs for CEW recovery and recycling as reported over the life of the program for all included participants (as opposed to various subcategories of operational scale). The small increase in the combined weighted average net costs from 2015, the last year the rates were adjusted, appears primarily due to increases in reported recovery costs, but there also was a slightly more than half a cent rise in the net cost of recycling. The data from the 2016 reporting cycle, a year when the rates are not adjusted, both categories saw decreases in the reported net costs. The full breadth of factors behind these fluctuations are unclear, but other data suggest recovery costs increases were due in part to charges by recyclers to cover processing costs of non-CRT CEW and payments to handlers and transporters in particular.

Analysis of payment claim data shows a quarter of all claimed CEW was attributed to activity where the CEW was discarded by the generator to an entity that is not an approved collector. This is up from 22% in 2015 and 23% in 2016, even though total volume decreased 27% since 2015. At the same time, the number of approved collectors participating in the system has steadily decreased, with a 9% and a 10% decrease from year to year since 2015. Some of these contractions are likely due to the decrease in volumes, or more specifically weight, of available CEW in California, as more than 2 billion pounds of CEW has been recycled through the California program and much of that was the heavier and more bulky CRT CEW. Therefore, there is less available weight to collect, making it more expensive to recover each successive pound. This is compounded by processing charges from recyclers for non-CRT CEW which data shows is more expensive to process as discussed above.

**Table 5. Comparison of Calculated Weighted Average Costs 2005-2017\***

Category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
													CRT	Non-CRT	Both
Recovery	17.1	16.7	14.8	16.6	14.4	15.3	15.2	17.1	16.8	17.2	17.6	16.3	N/A	N/A	20.0
Recycling	25.2	21.5	21.0	22.8	18.7	18.1	19.2	17.8	23.8	23.5	26.8	24.9	24.2	38.1	26.9
Combined	42.3	38.2	35.8	39.4	33.1	33.4	34.4	34.9	40.6	40.7	44.4	41.2	44.2	58.1	45.0

\*2010 to 2017 data excludes reported recovery costs in excess of \$1 and -\$1 per pound

**Conclusion**

The calculated weighted average net costs per pound to recover and recycle CEW in California based on information submitted in required Net Cost Reports reflecting collector and recycler operations during 2017 suggest that only an adjustment in the standard statewide combined recovery and recycling payment rate for non-CRT CEW as delineated in the currently proposed emergency regulations is warranted.

The reported recovery costs for 2017 are slightly higher than the levels reported in 2015 when CalRecycle determined that rate changes were warranted. Furthermore, recycling costs, when analyzed for just CRT CEW appear to be lower than in 2015.

Available data indicate that a majority of individual collectors and recyclers appear able to operate successfully within the existing payment rates for CRT CEW, as measured by the reported net costs. Meanwhile, the submitted reports suggest that the average of the three largest participants' net costs exceed the recycling portion of the current payment rate when CEW categories are combined. Only the costs to process non-CRT CEW indicate the need to increase the payment rate for that specific category of CEW.

In the end, statute does not direct CalRecycle to set payment rates at a level sufficient to cover every organization's net operational costs or necessarily favor one segment of the industry over another. Instead, the varied scope and scale of the participants in the CEW program argues that the mollifying use of a weighted average across the entire industry be considered as the path to follow.

## AGENDA

### COVERED ELECTRONIC WASTE (CEW) STAKEHOLDER WORKSHOP RECOVERY AND RECYCLING PAYMENT RATES CONSIDERATIONS

Monday, May 7, 2018 10:00 a.m. to 1:00 p.m.

Coastal Hearing Room Cal/EPA Headquarters Building  
1001 I Street, Sacramento

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The purpose of this workshop will be to consider and discuss possible changes to the covered electronic waste (CEW) recovery and recycling payment rates, including a differential recycling payment rate for non-CRT CEW. Every two years, as required by Public Resources Code sections 42477 and 42478, CalRecycle must review and consider the adequacy of CEW recovery and recycling payments rates. The rates established by CalRecycle are intended to be sufficient to cover the average net costs of collecting and processing CEW.

This workshop will continue discussions previously held on April 17, 2018. Program staff will further present its evaluation of net cost information and make recommendations about payment rates.

CalRecycle uses historical cost information reported by CEW program participants, such as net cost reports, as well as other inputs to determine what the rates should be. CalRecycle must establish any rate changes by July 1, 2018.

The format for the workshop will feature CalRecycle staff presentation providing an overview of the workshop topics, to be followed by staff facilitated open discussion. The workshop will allow stakeholders to comment and discuss the rationale and findings relative to the continued evolution of the CEW recycling payment system.

CalRecycle has scheduled the meeting room until 1:00 p.m., however it is anticipated that the workshop will not last that entire time.

TIME	TOPIC	DETAILS
10:00 – 10:10	Opening Remarks	<ul style="list-style-type: none"><li>Welcome and Agenda Overview</li></ul>
10:10 – 11:00	Staff Presentation	<ul style="list-style-type: none"><li>Examination of Net Cost Report Information and Potential CEW Recovery and Recycling Payment Rate Adjustments</li></ul>
11:00 – 1:00 or as necessary	Open Discussion	<ul style="list-style-type: none"><li>Exploration of Topic Area and Issues of Programmatic Concern</li></ul>
1:00 or earlier	Wrap-Up and End	

#### General Information:

- Workshop website: <http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=2353&aiid=2146>
- For those unable to attend in person, the forum is planned to be webcast at <http://calrecycle.ca.gov/Broadcast/>
- Please forward questions and concerns during the workshop to [ewaste@calrecycle.ca.gov](mailto:ewaste@calrecycle.ca.gov)
- Pre- and Post- Workshop Contact Information – Ana-Maria Stoian-Chu 916-341-6368 or [Ana-Maria.Stoian-Chu@calrecycle.ca.gov](mailto:Ana-Maria.Stoian-Chu@calrecycle.ca.gov)

*Covered Electronic Waste (CEW) Recycling Program*

# Payment Rates Considerations

1



May 7, 2018

# Introduction

This workshop will cover:

- CEW Program Basics and Stats
- Acknowledgement of Industry Dynamics
- Further Analysis of Net Cost Report Data
- Proposed Adjustments to CEW Payment Rates
- Open Discussion
- Next Steps

# Background

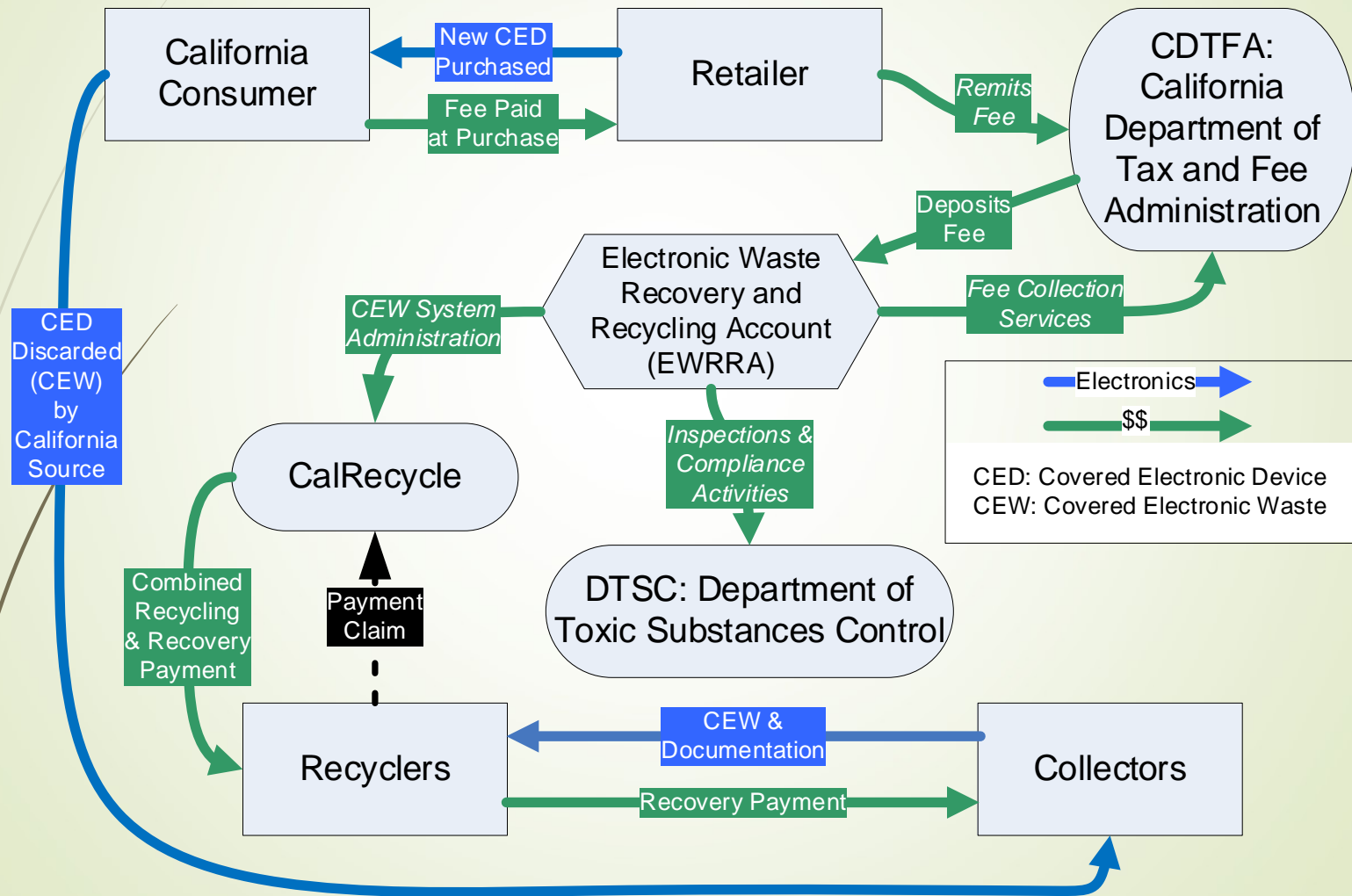
## The Electronic Waste Recycling Act

- Established a system to support the recovery and recycling of CEW
  - Only compliantly documented CEW from CA sources are eligible
  - CEW must be recycled (cancelled) in CA
  - Treatment residuals must be properly managed (e.g. CRT glass)
- Payment rates intended to cover average net costs of collection and recycling

3



# CEW Payment System

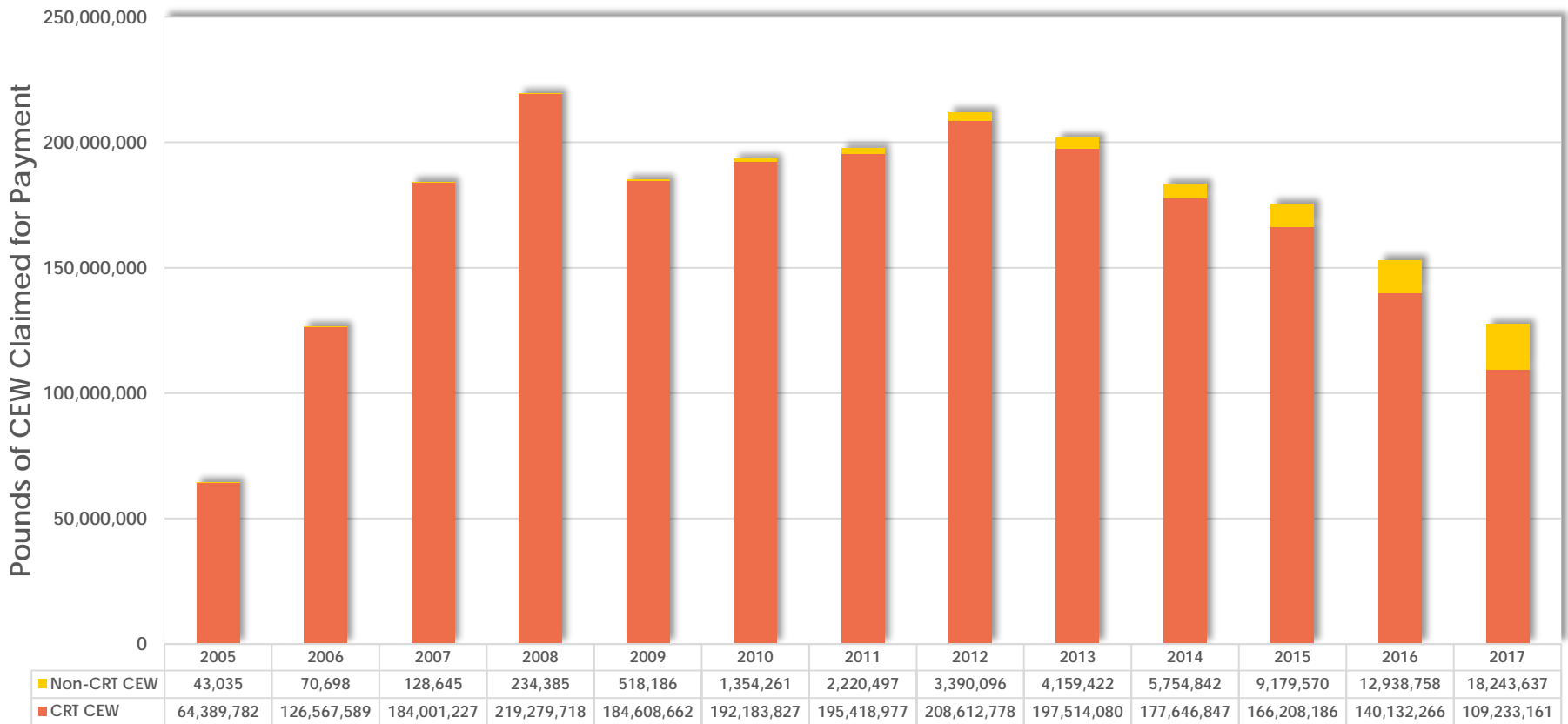


# CEW Recycling Payment System

- ~2.2 billion pounds of CEW claimed since program inception
- ~**127** million pounds of CEW claimed in 2017

## Covered Electronic Waste Recycling Payment System

2005-2017 Pounds of CRT and Non-CRT CEW Claimed for Payment



*Volume fluctuations due to infrastructure changes, legacy stockpile depletion, CRT glass market disruptions and claim timing.*

# Program Dynamics Today

- Concerns about availability / cost of residual CRT glass markets
  - Limited CRT glass outlets / capacity
  - Disposal has become the primary option
- Recyclers and collectors still need to be careful about who they do business with
- Commodity prices have risen significantly since 2016
  - Plastics exports impacted by National Sword Policy
- Increasing amounts of non-CRT CEW

# Non-CRT CEW

## Considerations

- 14% by weight in 2017
- Wide range of technologies
- Challenges:
  - Devices lighter and harder to dismantle
  - Residual management costs
  - Miniaturization, less intrinsic material value

# Multiple Recycling Payment Rates

Proposed regulations establish the structure to accommodate a differential recycling payment rate for non-CRTs.

- Revision to the Definitions section
- Recyclers required to report separately the net cost associated with recycling CRT CEW and non-CRT CEW
- Recyclers required to maintain records relative to the management of all CRT CEW and non-CRT CEW handled
- The Standard Statewide Combined Recovery and Recycling Payment Rate is split into separate payment rates for CRT CEW and non-CRT CEW.

# Net Costs and CEW Payment Rates

- Regulations require Net Cost Reports to inform CalRecycle in its duty to set payment rates
- Statute requires CalRecycle to establish “...*an electronic waste recovery payment schedule...*” and “...*a CEW recycling payment schedule for each major category of CEW received, processed and claimed*”
- Converting reported costs of yesterday into standardized payment rates for the future is the challenge; Net Cost Reports only part of puzzle

# Net Cost Reporting

Latest reports due March 1, 2018

- 370 reports submitted
  - 370 collector reports (10 reported no activity)
  - 23 recycler reports

Preliminary analysis of as-reported 2017 data

- Trend of widely varying costs continued
- Ongoing NCR assessments by Audits
  - Reports remain challenged in costs allocations / documented support

# DRAFT 2017 Costs Calculated Using All\* Reports

Net Costs Reported for 2017 (cents per lb)		Weighted Average	Mean	Median	% of Reports < or = Std Pay Rate
Recovery* (329)	Revenue	<b>4.4</b>			
	Cost	<b>24.4</b>			
	Net Cost	<b>20.0</b>	<b>20.8</b>	<b>15.7</b>	<b>60.2%</b>
Recycling (23)	Revenue	<b>12.8</b>			
	Cost	<b>39.7</b>			
	Net Cost	<b>26.9</b>	<b>28.0</b>	<b>29.7</b>	<b>56.5%</b>

\* Excluded 31 reports: 19 reports where recovery net cost per pound exceeded -\$1;  
9 reported extremely high revenues; 3 with a grossly inflated weight



# DRAFT 2017 Costs Calculated Using Select\* Reports

Net Costs Reported for 2017 (cents per lb) (* "large" operations handling "top" 50% of CEW)		Weighted Average	Mean	Median	% of Reports < or = Std Pay Rate
Recovery (21)	Revenue	<b>4.5</b>			
	Cost	<b>24.6</b>			
	Net Cost	<b>20.1</b>	<b>20.3</b>	<b>18.9</b>	<b>52.4%</b>
Recycling (3)	Revenue	<b>12.8</b>			
	Cost	<b>43.7</b>			
	Net Cost	<b>30.9</b>	<b>30.4</b>	<b>32.6</b>	<b>33.3%</b>

# DRAFT 2017 Costs Calculated Using Select\* Reports

Net Costs Reported for 2017 (cents per lb) (* "small" operations handling "bottom" 50% of CEW)		Weighted Average	Mean	Median	% of Reports < or = Std Pay Rate
Recovery (308)	Revenue	<b>4.3</b>			
	Cost	<b>24.1</b>			
	Net Cost	<b>19.8</b>	<b>20.9</b>	<b>15.7</b>	<b>64.3%</b>
Recycling (20)	Revenue	<b>12.7</b>			
	Cost	<b>35.5</b>			
	Net Cost	<b>22.8</b>	<b>27.6</b>	<b>29.2</b>	<b>60.0%</b>

## Preliminary 2017 Calculated Specific CRT and Non-CRT CEW Recycling Costs

Net Costs Reported for 2017 (cents per lb)		Weighted Average	Mean	Median	% of Reports < or = Std Pay Rate
CRT* (13)	Revenue	<b>8.2</b>			
	Cost	<b>32.4</b>			
	Net Cost	<b>24.2</b>	<b>26.6</b>	<b>28.6</b>	<b>69.0%</b>
Non-CRT** (7)	Revenue	<b>12.7</b>			
	Cost	<b>50.8</b>			
	Net Cost	<b>38.1</b>	<b>42.0</b>	<b>51.7</b>	<b>28.6%</b>

\* Exclude two reports with obvious errors.

\*\* Only includes information from reports where material type specific information was provided.

## Comparison of Weighted Average Net Costs (cents per pound)

Category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Recovery	17.1	16.7	14.8	16.6	14.4	15.3	15.2	17.1	16.8	17.2	17.6	16.3	CRT	Non-CRT	Both
													N/A	N/A	20.0
Recycling	25.2	21.5	21.0	22.8	18.7	18.1	19.2	17.8	23.8	23.5	26.8	24.9	24.2	38.1	26.9
Combined	42.3	38.2	35.8	39.4	33.1	33.4	34.4	34.9	40.6	40.7	44.4	41.2	44.2	58.1	45.0

\* Excluded reported recovery costs > \$1 and < \$-1

# Other Considerations?

- Reconciling “average net costs” and seeming intent of Act is challenging
  - Payment rates based on averages do not cover all
  - Weighted averages reflect entire industry’s cost
  - Regulations anticipate unmet costs
- Program itself influences behaviors
- Future is uncertain...

# Draft Payment Rate Proposal

- Recovery rate for CEW be maintained at **19** cents per pound
- Combined recovery and recycling payment rate for **CRT CEW** be maintained at **49 cents** per pound
- Combined recovery and recycling payment rate for **non-CRT CEW** be changed from 49 cents to **60 cents** per pound
- Changes to take effect July 1, 2018

# Draft Payment Rate Proposal

- **14 CCR § 18660.34. Standard Statewide Combined Recovery and Recycling Payment Rate.**

(b) Beginning July 1, 2016~~8~~, the Standard Statewide Combined Recovery and Recycling Payment Rates are:

- (1) \$0.49 per pound for CRT CEW.
- (2) \$0.49~~6~~0 per pound for non-CRT CEW.

# Open Discussion

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# Upcoming Program Actions

- Before July 1, 2018 CalRecycle must determine
  - If any payment rate adjustment is warranted
  - Differential recycling payment rate for non-CRT CEW
- CalRecycle Monthly May 15, 2018
- Once approved, CalRecycle will file any rate changes with OAL

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