

California's Covered Electronic Waste (CEW) Recycling System



WSPPN Webinar

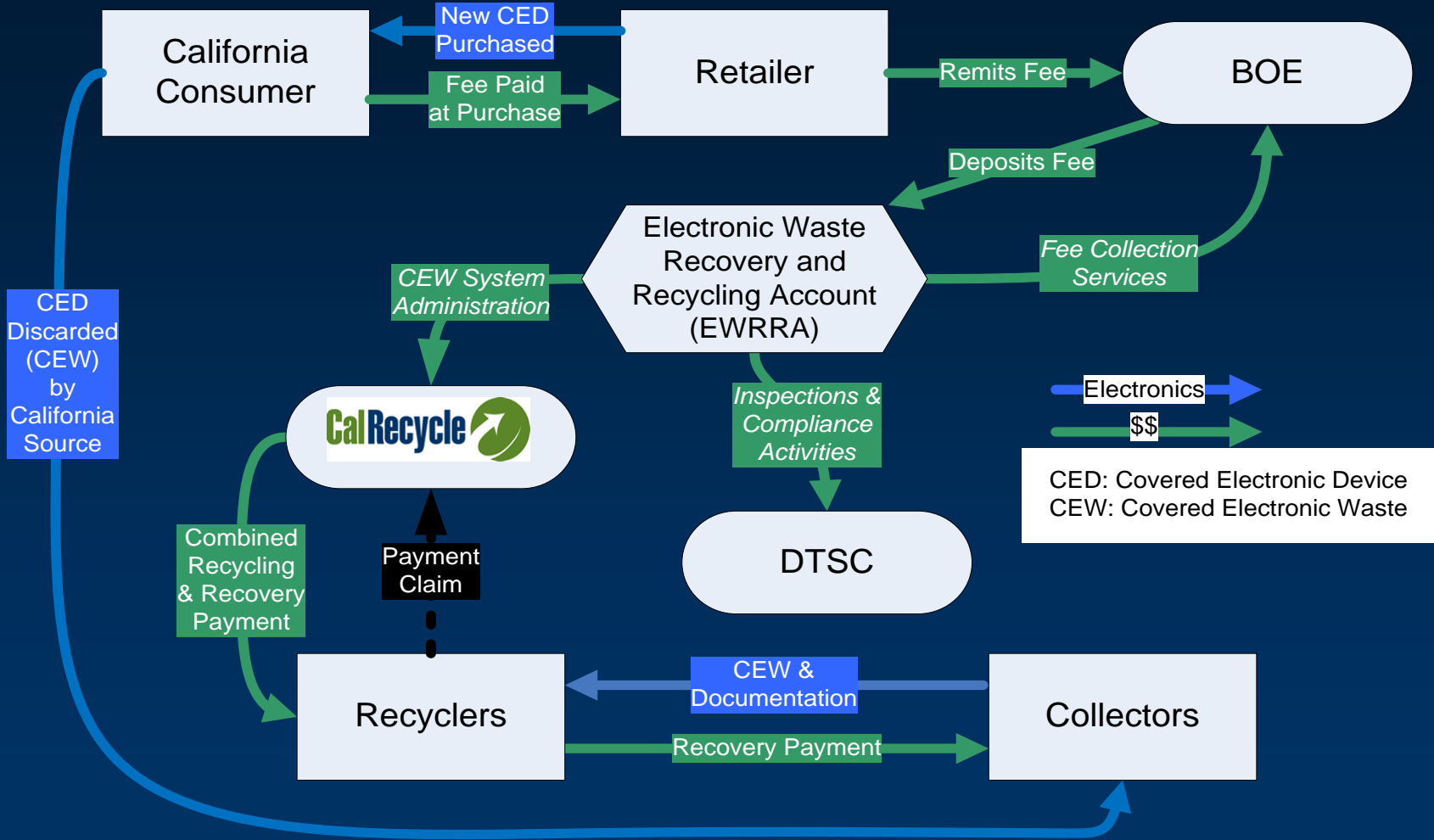


June 5, 2013

Today's CalRecycle Portion:

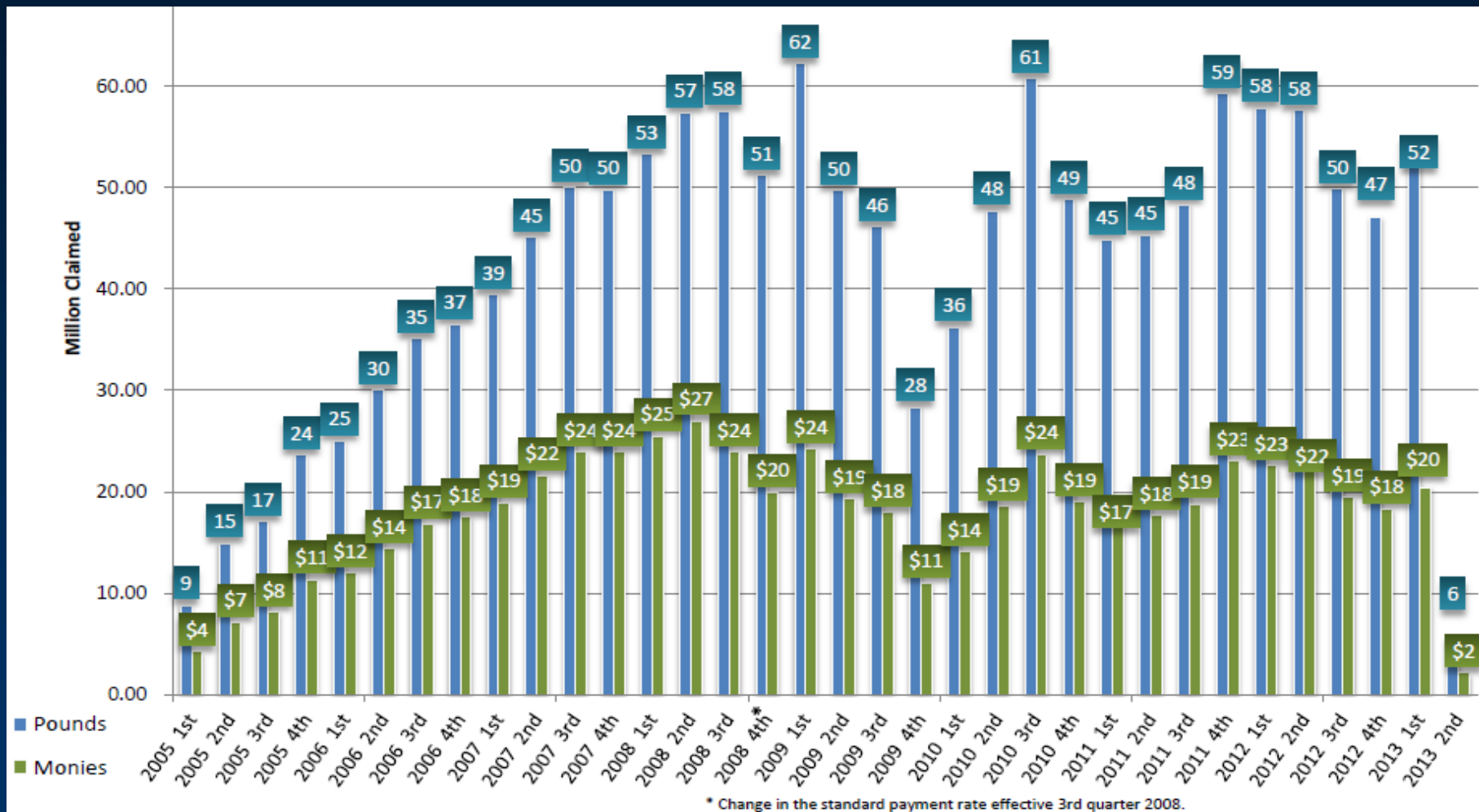
- **The EWRA and the CEW Program**
 - **Background & Status**
 - **Costs & Payments**
- **Program Challenges**
 - **CRTs: What to do w/ 100 million pounds/year?**
- **Designated Approved Collectors**
 - **Key Considerations / Program Experience**

Covered Electronic Waste (CEW) Recycling System



CEW Recycling System Quarterly Volumes

- ~1.4 billion pounds of CEW claimed since program inception (as of June 2013)



Volume fluctuations due to infrastructure changes, legacy stockpile depletion, CRT glass market disruptions and claim timing. Recyclers are supposed to submit claims within 45 days after the end of a reporting month.



2011 Costs Calculated Using Refined* Data

Net Costs Reported for 2011 (cents per lb) High Volume		Weighted Average	Mean	Median
Recovery	Revenue	4.8		
	Cost	20.7		
	Net Cost	16.0	17.8	16.5
Recycling	Revenue	12.6		
	Cost	34.1		
	Net Cost	21.5	18.4	18

*Only Collectors and Recyclers that reported handling or processing more than 1 million pounds of CEW

Payment Rate Considerations

Data reflects yesteryear

- **Future costs / revenues / markets unknown**

Wide-ranging business models

- **Do costs expand to use available funds?**

Continuing uncertainty re: CRT costs

- **What effect will new rules have?**
- **What are the costs of non-CRT devices?**

Recent Program Actions

- **July 1, 2012**

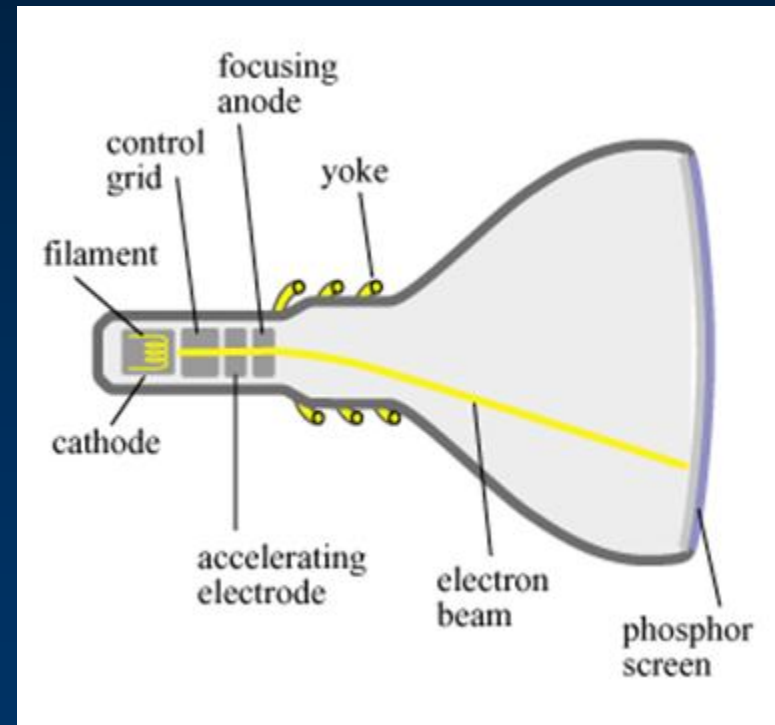
- **CalRecycle reaffirmed payment rates**
 - Recovery -- \$0.16 per pound
 - Recycling -- \$0.23 per pound

- **August 1, 2012**

- **CalRecycle acted to reduce consumer fee**
 - Was: \$6, \$8, and \$10
 - Effective January 1, 2013: \$3, \$4, and \$5

Cathode Ray Tubes (CRTs)

Composition and Components



In general:

- Funnel contains lead
- Panel contains barium

CEW-CRT: Program Facts / Stats

- 99% of CEW claims are for CRT devices
 - 3x increase in non-CRT in last two years
- >300 million pounds of CRTs / glass “shipped” since January 2010:
 - >60 million pounds to Mexico
 - >80 million pounds to Arizona
 - >30 million pounds to Ohio
 - >120 million pounds initially to “in-state” intermediate destinations

CEW-CRT: Program Facts / Stats

- Only one known CRT manufacturer available to Western glass generators
 - **Samtel / Videocon (India)**
- Only three large-scale smelters in North America consuming CRT glass
 - **Doe Run (Missouri)**
 - **Teck Cominco (Canada)**
 - **Xstrata (Canada)**
- Three new domestic lead extraction ventures reportedly in development.

Program Uncertainties Today

CRT Glass Markets...

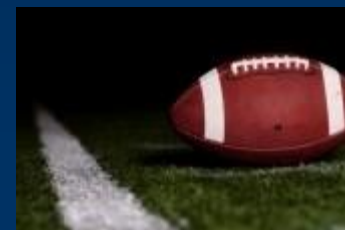
- Long-term supply of CRT glass is limited; impacts ROI
- In-state processing capacities exist, but no final markets
- New disposition options for residual glass are needed



CEW Recycling Rules Remain Unchanged For Now

Annual CRT Glass Volume Perspective

- 100,000,000 pounds or 50,000 tons CRT glass
- Approximate density of CRT glass cullet:
~1 ton per cubic yard
- ~50,000 cubic yards or ~1,350,000 cubic feet
- ~30 acre-feet of CRT glass
- One NFL football field covered ~20 feet deep



Other Program Challenges

- **Non-CRT CEW**
 - **Plasma panel management advisory**
 - **Markets for LCD residuals?**
 - **CCFL handling and treatment concerns**
 - **LED characteristics?**



Upcoming Program Actions

- Rulemaking responding to CRT rules
 - **CalRecycle will act under emergency authority**
 - **Initial proposal may accommodate all legal residual management options**
- Rulemaking to further refine program
 - **Designated approved collectors**
 - **Non-CRT documentation**
 - **Different payment rates**
 - **Administrative penalties**

CEW System Participation

Who can be an Approved Collector?

- **Solid waste companies**
 - **Recycling companies**
 - **Asset management companies**
 - **Local governments**
 - **Non-Profits**
 - **Individuals**
-
- For better or worse, almost anyone who can complete a few forms can be approved

CEW System Participation

Local Gov'ts vs. All Others...

Historically:

- > 1,400 total entities have participated
- < 90 local gov't have participated directly

Presently:

- ~ 550 approved collectors active
- ~ 45 of which are local gov't

CEW System Documentation

Local Gov'ts vs. All Others...

14 CCR 18660.20(j)(1)(B) Approved collectors that are not California local governments, nor entities acting as the designated approved collector for a California local government shall maintain a list of all California sources who discarded the CEWs transferred to the approved collector, including the name and address of the California source and the number of CEWs discarded by the California source.

Designated Approved Collector (DAC)

Key Definition

14 CCR 18660.5(a)(19) "Designated Approved Collector" means an approved collector, as defined ..., that has been designated by a California local government to provide CEW collection services for or on behalf of the local government and who, in the course of providing the services for the local government, would not be subject to the source documentation requirements pursuant to Section 18660.20(j)(1)(B) of this Chapter.

Designated Approved Collector (DAC)

Program Experience (positive)

- Over 360 Local Gov'ts have issued one or more designations
- Allows for innovative collection models where detailed source documentation is difficult
- Makes claim review much easier, but...

Designated Approved Collector (DAC)

Program Experience (**negative**)

- Local Gov'ts are routinely solicited (badgered) by collectors to issue designations
- Designations are occasionally issued by unauthorized personnel; little oversight
- Sole criminal indictment thus far involved an inappropriate designation

Additional DAC Considerations

- We encourage Local Gov't to closely monitor all DAC activities
 - May have HHW / Form 303 implications
 - We suggest that designations occur only within the context of formal service agreements
 - Collectors can operate w/o a designation!!!
- Please refer specific questions about designations to CalRecycle's e-waste program
 - Let's make sure that this important provision is not corrupted or compromised... and lost.

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