



Department of
Toxic Substances
Control



CalEPA
California Environmental
Protection Agency

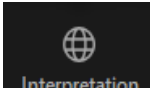
Addition to the List of Covered Electronic Devices in Appendix X

COVERED ELECTRONIC WASTE (CEW) RECYCLING PROGRAM

TO JOIN BY TELEPHONE PLEASE DIAL: **(669) 900-6833** AND ENTER **844 0939 1955 #**



Webinar Instructions

- You are in a listen and view only role
- If you have a question or comments-
 - Use Q&A feature (bottom of the screen)
 - Do not use chat function
 - Email: Electronicwaste@dtsc.ca.gov
- We will respond during Q&A session
- Click  for Spanish translation

Workshop Objectives

1. What product categories were selected for testing.
2. How the product categories and devices were selected.
3. How the devices meet the criteria to be eligible to be listed as Covered Electronic Devices.
4. Get your input.

Agenda

- Covered Electronic Waste Recycling Program background.
- Project overview.
- Devices chosen for the project.
- Criteria to be eligible for the recycling program.
- Timeline.

Covered Electronic Waste Recycling Program

- Established by the Electronic Waste Recycling Act of 2003.
 - California Department of Tax and Fee Administration (CDTFA).
 - The California Department of Resources Recycling and Recovery (CalRecycle).
 - The Department of Toxic Substances Control (DTSC).
- Established a program for consumers to return, recycle, and ensure the safe and environmentally sound disposal of video display devices.

Covered Electronic Waste Recycling Program

- Requires consumers to pay a fee on all Covered Electronic Devices (CEDs) at the time of retail purchase.
- Fee is remitted to CDTFA and held in an account.
- Money in the account is used for:
 - Reimbursing participating collectors and recyclers.
 - Pay for testing, enforcement, and other administrative processes.

Covered Electronic Devices

- A CED is a video display device containing a screen greater than four inches, measured diagonally, that is found to exhibit the hazardous waste characteristic of toxicity when discarded.
- A list of CEDs are found in the California Code of Regulations, title 22, division 4.5, chapter 10, section 66260.201 and chapter 11, Appendix X.

Current CEDs in regulation:

1. Portable DVD players.
2. CRTs.
3. CRT-containing computer monitors.
4. Liquid crystal display (LCD)-containing laptop computers.
5. LCD-containing desktop monitors.
6. CRT-containing televisions.
7. LCD-containing televisions (excluding LCD projection televisions).
8. Plasma televisions (excluding plasma projection televisions).

Project Overview

- DTSC intends to update the CED list found in Appendix X.
- Step to achieve project:
 - Select electronic devices for testing.
 - Test electronic devices for the hazardous waste characteristic of toxicity.
 - Emergency rulemaking package.

Devices Being Tested

1. Organic light-emitting diode (OLED) containing televisions.
2. OLED-containing laptop computers.
3. OLED-containing desktop monitors.
4. OLED-containing tablets.
5. LCD-containing tablets.
6. LCD-containing smart devices.

How Were Devices Chosen?

- How large is the market share of each brand?
- Is it a niche product that only a small segment of consumers would purchase?
- Is it widely available for consumers to purchase?

Methodology

- Product categories developed by CalRecycle in conjunction with industry suggestions and trends.
- cursory internet searches for devices.
- Consult industry publications for what is driving technology trends and consumer behavior.
- Consult top retail websites for best selling devices and products.
- Taking into consideration the economic feasibility of managing the devices.

Testing

- If devices tested display the hazardous waste characteristic of toxicity, the entire category will be listed.
- Manufacturers who believe their brands of devices are not hazardous may go through an established procedure to exclude their specific brands from being charged the fee.
- More information can be found in the Health and Safety Code 25214.10.1.

OLED-containing Televisions

1. LG 55" C9PUA Series 2160p
 2. Sony 55" A9G Master Series 2160p
- Top selling OLED televisions on Amazon and other major retailers' websites.
 - Brands with largest U.S. OLED television market share.
 - Representative of what consumers are purchasing.

OLED-containing Laptop Computers

1. Dell XPS 15 7590
2. HP Spectre x360
3. Asus Zenbook Pro Duo Notebook
 - Top ranked and consistently named one of the best OLED laptops in technology online publications and websites.
 - Representative of current OLED laptop market.

OLED-containing Computer Monitors

1. Dell 55" Alienware OLED AW5520QF
 2. Asus 21.6" Proart PQ22UC
- OLED computer monitors not common now but is on the rise especially among gamers and other professionals.
 - DTSC is testing these now as OLED computer monitors may be more common consumer product in the future.

OLED-containing Tablets

1. Samsung Galaxy Tab S6
 2. Galaxy Tab S5e
- Samsung is the largest (and one of the only) producers of OLED tablets.
 - These are the top selling Samsung tablets.
 - Easy to find and is widely available at all major retailers.

LCD-containing Tablets

1. Apple iPad 8th generation
 2. Apple iPad mini
 3. Amazon 7" Fire Tablet 7
 4. Samsung 8" Galaxy Tab A
- Over 190 million tablets in the U.S.
 - These brands make up the majority of all U.S. tablet sales.

LCD-containing Smart Devices

1. Google 7" Nest Hub
 2. Amazon 8" Echo Show 8
 3. Facebook 10" Portal
- New and rapidly growing technology most popularized by Google, Amazon, and Facebook.
 - Sales of smart displays have grown exponentially since 2018.

CED Eligibility

- A CED is a video display device.
 1. Contains a screen greater than four inches, measured diagonally.
 2. Found to exhibit the hazardous waste characteristic of toxicity when discarded.
- Testing will be done by DTSC's Environmental Chemistry Lab.
 - Must exceed regulatory thresholds found in California Code of Regulation, title 22, division 4.5, chapter 11, section 66261.24.

Common Metals Found In Electronics

- Lead
- Mercury
- Nickel
- Copper
- Antimony

If Devices Do/Do not meet Regulatory Threshold

- If the device category exceeds a regulatory threshold.
 - Will be eligible to be a CED.
- If the device category does not exceed a regulatory threshold.
 - Will not be eligible to be a CED.

Timeline

- **Winter 2020:** Purchase Devices.
- **Winter 2020:** Begin Testing Devices.
- **Late Spring 2021:** Complete testing and analyze results.
- **Early Summer 2021:** Emergency regulations go into effect (2 years).
- **Summer 2021:** Begin formal rulemaking process.
- **Summer 2022:** Complete formal rulemaking and regulations permanently go into effect.

Questions & Answers

- Click **Q&A** at the bottom of your screen to type in your question.
- Please ask only **one (1) question** at a time.
- We will not be using the chat function.
- Email: Electronicwaste@dtsc.ca.gov

Thank you!

Uyen Nguyen, Associate Governmental Program Analyst

Uyen.Nguyen@dtsc.ca.gov

Ricardo Rivera, Environmental Scientist

Ricardo.Rivera@dtsc.ca.gov

Jessica Twining, Supervisor

Jessica.Twining@dtsc.ca.gov