

# October 11, 2017

## Stakeholder Meeting Notes

### Stakeholder Workshop

#### Future of Electronic Waste Management in California – Part 4

Workshop Documents and Attachments can be found:

<http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=2033&aiid=1855>

**Meeting Facilitators:** Shirley Willd-Wagner / Howard Levenson / Teresa Bui

#### **Attendance:**

##### Stakeholders

Ruuhwa Dann, Cal Micro Recycling  
Jesson Panopio, Cal Micro Recycling  
Tomi Wessel, SIMS Recycling Solutions  
Eddie Shipman, SIMS Recycling Solutions  
Beverly Kennedy, ECS Refining  
John Walker, ECS Refining  
George Valentin, Waste Tire Products (WTP)  
Peter Mui, Fixit Clinic  
Jaime Minor, Legislative Advocate, Niemela  
Pappas & Assoc. (NPA) for HP Inc.  
Walter Alcorn Alcorn, VP of Environmental  
Affairs for Consumer Technology Assoc.  
(CTA)  
Caitlin Sanchez, Counsel for Vizio  
Ken Taggart, ECS Refining  
Janice Oldemeyer, Onsite Electronics Recycling  
Emily Pappas, Partner, Niemela Pappas &  
Assoc. (NPA) for HP Inc.  
Roxanne Gould, Government Relations Dell Inc.

Jack Rockwood, ECS Refining  
Jane Bei, CEAR Inc.  
Russ Caswell, e-Recycling of Ca  
Larry Sweetser, Rural Counties Environmental  
Services Joint Powers Authority (ESJPA)  
Kristin Sherrill, CEAR Inc.  
Stacey Henrikson, CEAR Inc.  
Heidi Sanborn, California Product Stewardship  
Council (CPSC)  
Melissa Romero, (did not sign in)

##### CalRecycle Speakers

Howard Levenson  
Shirley Willd-Wagner  
Teresa Bui

#### **AGENDA AND STAFF PRESENTATIONS**

##### **Opening Remarks and Project Status: Howard Levenson / Shirley Willd-Wagner.**

The purpose of the Future of Electronic Waste Management in California project is to engage stakeholders in discussing current conditions and future options for electronic waste management in California. This is the fourth in a series of stakeholder workshops. The first workshop, held September 14, 2016, featured a panel of stakeholders representing a range of California perspectives followed by small group discussions to explore potential models and identify elements that are vital to the success of any program approach. The second workshop on March 15, 2017, explored what various potential models could look like using a particular product category as an example. The June 20, 2017 workshop focused on developing criteria by which various product categories could be evaluated for potential

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inclusion in the definition of a covered electronic device (CED). Materials from all workshops can be found on the [Future of Electronic Waste Management in California](#) webpage.

Today's workshop offers a discussion of approaches to analyzing currently non-covered products and presents more detailed descriptions of two major models for expanding the current e-waste management program: Enhancing the Current Fee and Payment System, and the Product Stewardship Model. Finally, we will discuss how the two models could address fundamental goals for a comprehensive e-waste management system. Stakeholders are encouraged to actively participate in this discussion and are invited to submit written comments.

Background documents have been posted at the CalRecycle [Public Notices](#) website. CalRecycle is presenting these documents for discussion purposes only and is not making any proposals at this time. Also note that CalRecycle is separately considering whether and how to make other changes to the existing CEW program that do not require legislation, including whether and how to provide multiple payment rates for existing covered devices as well as continuing to address various documentation issues.

### Fundamental Goals of an Expanded E-Waste Program

CalRecycle staff worked with stakeholders to identify key fundamental goals. Please keep these in mind as we go through today's workshop:

1. Ensure responsible management of hazardous materials;
2. Foster innovative and environmentally sound recycling technologies;
3. Provide free and convenient collection opportunities for consumers;
4. Maximize efficient recovery of materials;
5. Encourage environmentally sound product design practices;
6. Encourage reuse;
7. Promote and encourage processing within California; and
8. Address illegal dumping.

### Concurrent Initiatives

- Formal Rulemaking:
  - This morning's hearing to finalize two emergency regulations.
  - Designated Approved Collectors – Finalize emergency regulations
  - Recycling Payment Rates.
- Recycling Payment Rates:
  - Recognition that rates adequate for CRT CEW may not suffice.
  - Authority for recycling rates for "major categories".

## CONSIDERATION OF ADDING NEW PRODUCTS AS COVERED ELECTRONIC DEVICES

**Staff Presentation:** Teresa Bui (See presentation and discussion document.)

SB 20 only addresses certain video display devices. Most stakeholders agree with need to add devices.

Two potential approaches:

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1. Adopt a scheme used elsewhere – Examples: Waste Electric and Electronic Equipment (WEEE) Directive used in Europe, defines e-waste as equipment which is dependent on electric currents or electromagnetic fields in order to work properly. In Canada, covered products vary by Province, but all include televisions, computer monitors, CPUs, keyboards, cables, mice, speakers, printers, laptops, notebook computers, and tablets. British Columbia has an extensive list of covered products similar to the WEEE Directive. Twenty-four other U.S. states have e-waste recycling laws, and covered products vary widely among these. All states include monitors and all but three include televisions. Other commonly covered devices include desktop computers (22 states), e-readers (15 states), printers (14 states), keyboards and peripherals (9 states).
2. Do a product selection exercise to evaluate and recommend new products for CA.

In order to demonstrate what a product selection exercise would take, staff undertook an informal process to review various product categories according to specific criteria. This is simply one example of how screening criteria could be applied to identify new devices. It is NOT a CalRecycle proposal, but simply meant to be illustrative. See Product Selection Table in background documents. The final column provides staff's assessment of how the product categories could be ranked.

Potential criteria were discussed at the June workshop. Staff used this criteria for the exercise, but also considered overall vision; moving beyond strictly hazardous constituents to consider other factors such as resource recovery, waste management hierarchy.

### Product Screening Criteria

- Current management
- Toxicity levels
- Ease of processing
- Prevalence in waste stream
- Trends
- Material recovery value

### Product Screening Categories:

- Computer Related Electronics
- Other Small Electronics
- Small Household Appliances
- Large Household Appliances
- Electric Car Battery
- Solar Panels
- Commercial & Medical Devices
- Toys, Leisure & Sporting Equipment
- Household Tools

### Open Discussion:

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**Howard Levenson** – Any change in product scope will require legislation. Either the legislation specifies the product scope, or we go through a selection process like this. Very difficult to make some of these conclusions; lack data. Need input on how to add products through process selection.

**Ruuhwa Dann** (Cal Micro Recycling) – Two categories could be added: batteries and LED lights including LED flashlights, LED lightbulbs, fluorescent bulbs. Right now LED backlight monitor is considered highly toxic. Staff assessment needs to be a little bit higher in that category.

**Shirley Willd-Wagner** – Confirming that your comment that batteries and LED lights should be a separate category under other household products.

**Ruuhwa Dann** – Yes.

**Walter Alcorn** (Consumer Technology Association) – Would prefer the process be done legislatively through statute. Screen criteria are very similar to each other. Suggest that we should not assume that expansion is necessary. Should be used sparingly, new fees added to products only when necessary.

**Howard Levenson** – Stakeholders have been expressing the need for expansion. Make it clear that virtually everything we are discussing would require legislation. Adopt either through legislation or a process like this.

**Melissa Romero** (Californians Against Waste) – Consider mechanisms to include unforeseen technologies that may be in the waste stream in the future.

**Larry Sweetser** (ESJPA Rural Counties) – Local government entities are inundated with material; so they would say it is definitely necessary now.

**Teresa Bui** – Would fall under trends; could seek legislative authority to add. Revisit every 5 years. How could we define “necessary”?

**Walter Alcorn** – I think it is a judgment call. Starting point might be what is good for the overall system not just one stakeholder. A lot of information we all need to work through before we can decide.

**John Walker** (ECS Refining) – We have been doing this since 2003. Nonprofits, transfer stations, landfills are required to take everything and they are in same boat as a recycler. We receive tremendous amount of material that has no value. For scope, I would prefer anything that takes a battery or cord are hard to separate.

**Peter Mui** (Fixit Clinic) – Expand to WEEE scope. Anything that has a battery or cord should be classified as covered e-waste. Repair as much as possible and durable. Make products more durable to slow down that flow into e-waste – increase lifespan, slow down the churn. Post disposable world.

**Howard Levenson** – Shirley is going to talk a bit about concepts in both models where we could possibly enhance reuse reparability.

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**Ruuhawa Dann** – Want to point out some trends that threaten recycling: scrap metal and plastic material used to be exported to China; we need to deal with this problem and process this material locally. Major trend threatens recycling’s core existence; used to be exclusively export to China. With China’s new ban (national sword), we need to process our own plastic and scrap metal.

**Howard Levenson** – Lots of implications for scrap markets, resell values, etc. CalRecycle will have separate discussions about handling those kinds of materials. Will this impact discussions with regard to funding / fees to support a viable recycling program?

**Ken Taggart** (ECS Refining) – Need clarification regarding “ease of processing” criterion. Is it a higher priority if easier to process or the opposite?

**Teresa Bui** – If device requires manual dismantling, it is higher priority. Costs to recycle this material is greater.

**Howard Levenson** – We drafted these criteria during previous workshop regarding priorities. Clearly, any ranking scheme can be subjective.

**Peter Mui** – Three days ago in London, attended global meeting regarding Open Repair Data Standard to collect community repair data globally that we can share with organizations like CalRecycle to inform policy: <https://therestartproject.org/tag/open-repair-alliance>. Came together to support open data standard forum for documenting the kinds of things we are seeing at our events. At Fixit Clinics, current survey collects data on make and model of devices brought in and what went wrong with them. We could add questions that would help CalRecycle in policy discussions. Let me know what you need.

**Teresa Bui** – Let’s discuss after this workshop.

**Shirley Willd-Wagner** – I am hearing you say, you will be able to share on a public platform; the types of material that comes into your events.

**Peter Mui** – Invite the general public to bring their broken products to fixit clinics; a pre-register form gathers basic data and an exit form asks if their device was fixed and how. The goal is to try to have a centralized database.

**Ruuhwa Dann** – One of the criteria missing is usage/shelf life of the product itself. Example, refrigerator versus flashlight.

**Teresa Bui** – We could prioritize items with a short shelf life; determined by type of product.

**Jason Smyth** – Regarding lifespan of the products, some of our questions include is the flashlight discarded because the battery failed, or simply needs new batteries; what is the expected life span, warranty?

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**Howard Levenson** – Many of these things will be discussed later in Shirley's discussion. Any more comments. If not we can move onto the next

### CONCEPTS FOR ENHANCING EXISTING FEE AND PAYMENT MODEL

**Staff Presentation:** Shirley Willd-Wagner Concepts for Enhancing Existing Fee and Payment Model to meet fundamental goals. (See presentation and discussion document.)

Strengths: Build on success; consistent processes; retain strong materials management standards.

Challenges: No reduction in administration costs, increased complexity of fees and payments, might be hard to determine cancellation and set management standards.

Discussed ideas that could be added to a fee/payment model to better address goals. Most would have to be done legislatively. Remember that these are initial ideas designed to begin the conversation, NOT proposals.

Enhancing Fee / Payment Model Key Components.

1. Add products:
  - Determine recovery and recycling payments
  - Materials management standards
2. Public Education and Outreach.  
Point of purchase info, statewide campaign? Environmental education curriculum?
3. Manufacturer Responsibility.  
Strengthen reporting, labeling of hazardous materials, public education, product durability, limited take-back?
4. Repair and Reuse Incentives – CalRecycle facilitate partnerships with repair orgs, support right to repair laws.
5. Market Development Programs, grants, loans, rural collection incentive
6. Research – find data (surveys/studies), new processes and technologies, design for environment standards or labeling.
7. Claim documentation streamlining – electronic submittal?

Slide – CEW flow of money and material.

### **Open Discussion:**

**Walter Alcorn** – Analysis makes sense; good start. I have some thoughts on specific concepts that we can share later. Broader issue, no one here is representing the consumers. Should keep in mind the potential burden on consumers. In addition, retailers would have serious problems with many modulated fees; implementation would be very complicated. Most CTA members, manufacturers and retailers, support current system. Within a product category different fees for different brands gets very complicated. Probably for us we would want to go back and provide much more detailed complete comments.

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**John Walker** – In thinking of the net cost report, as we go forward, we need to simplify the process; maybe 3 categories: cord, battery, and other. Make sure costs associated with the new program will benefit all. I think the consumer understands that we must shift to a post disposable world. Education is key; must figure out how to keep products as long as possible and minimize stuff that does get to end of life. I am a consumer, do not feel it is onerous to spend the few dollars on the recycling fee (e.g. \$10 on a \$1,200 product). Make it easier on industry simplify the process.

**Peter Mui** – I think consumers know they are not getting true value because there is still too much good stuff going to landfill. There is a priority issue here.

**Howard Levenson** – Which of these ideas do you think is administratively easier on industry and consumer alike? Yesterday we had a packaging workshop, and similar end of life management issues came up; how do you recognize efforts that have been undertaken?

**Peter Mui** – Try to figure out how to keep things in service as long as possible. Consumers do not pay true cost. Not durable, reusable, repairable. Minimize forced end of life. Education; there is no “away”.

**Ruuhwa Dann** – Education is a non-issue. I think consumers know they have to pay for trash, same as household trash. If there is a residual value then the consumer is going to know about it. That is how it is. EBay shows that iPhones 4 and 5 are still being sold.

**Walter Alcorn** – We agree with long-term goal of eliminating waste. If you look at the amount of material used in electronics, which peaked in 2000, declined almost 50% and done without the passage of law. Source reduction might not be good for the recycling industry but is good for environment; we recognize this will be tough on recycling industry in the long run. We do not need leaded glass in our video display devices anymore.

**Howard Levenson** – How do you deal with or recognize those efforts whether toxics units, weight?

**Shirley Willd-Wagner** – The “Material Recovery Value” column on product selection table tries to get at this issue; not as good for the recycler, less weight, harder to dismantle, and less valuable material for the recycler to collect. Not worth staff time to recover. Too hard to get.

**Roxanne Gould** (Government Relations Dell Inc.) – Second what Walter Alcorn said about consumers; we cannot assume these groups can represent consumers.

**Shirley Willd-Wagner** – Consumer association?

**Roxanne Gould** – Consumer association.

**Ken Taggart** – In total agreement with incentives for reuse of commodities. Different direction though; we’d like to use water to use floatation for plastics, not treating, just to separate lighter plastics. To facilitate reuse of commodities we need your help with DTSC to make these avenues open to us.

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**Howard Levenson** – Legislation would be a place to deal with management and standards. DTSC authority.

**Ruuhwa Dann** – Would like to see less disposal. In our case, we would like to see less and less waste that goes to a landfill. As a human being, concerned about waste of energy, resources. I am happy to go out of business because there is nothing to recycle. We are running out of places to landfill the product. How can we delay this process; I am always concerned about as a recycler. Every product has a responsibility attached to it. Design a product easier to disassemble or identify toxics.

**Howard Levenson** – Which ones do you think should be done? Regulating the design of products is difficult.

**Ruuhwa Dann** – A design easier to disassemble. I think every product is supposed to have a responsibility label attached to show where the hazardous materials are, cradle to the grave.

**Peter Mui** – Need to keep product in service as long as possible. Seventy percent of products that come to a fixit clinic go home fixed. Sometimes parts are not available, manufacturers will not let you get the parts. In addition, education could push this from the other side rather than just a policy standpoint. Educate consumers to think about their consumption.

**Teresa Bui** – Open the question to manufacturers. What is feasible; e.g. Plastics Association recyclability design standards. Make devices more recyclable. How can CalRecycle help support this effort? Bring it to CA specific as well. Is there a forum where manufactures and recyclers discuss products, how to make them?

**Walter Alcorn** – Not a manufacturer but represent them on these issues. Issue of design for recycling is tricky. Other states have tried to legislate design, but not successfully. Reality is products are produced in a hyper competitive industry. Consumer purchasing habits drive the market. Consumers want that, it is the reality of our system. Recyclers have shared with manufacturers how products can be made to be easier to take apart.

**Howard Levenson** – Have you seen manufacturers and recyclers discuss reparability standards?

**Walter Alcorn** – No. Different vendors contracted repair with manufacturers. I have never actually spoken to manufactures about those specific two different groups.

**Emily Pappas** (Partner, NPA for HP Inc.) – Response to Teresa Bui question. HP is the forefront in product steward's first printers to be 10% plastic by weight, with a goal of 50%. Have voluntary take back programs.

**Caitlin Sanchez** (Counsel for Vizio) – Works with national recycler to make products easier to dismantle by taking the initiative without legislation in 2011. Phasing out mercury in. On the repair side, Visio contracts with companies to ensure the length of product usage, and to be more environmentally friendly with robust warranties. Want our products to be used as long as possible, the last resort is recycling and disposal.

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**Teresa Bui** – How do we get other manufacturers to emulate what Visio, Dell and HP do?

**Roxanne Gould** – Dell always trying to make better products, very competitive. Pay to have it taken care of responsibility. Ahead of the regulators in this arena. In our best interests to be environmental stewards.

**Howard Levenson** – Packaging analogy: we're still seeing a lot of material that needs end of life management; trying to properly manage from a cost standpoint. Asking recyclers, do we need to more as a state to foster end of life management?

**Shirley Willd-Wagner** – Want to hear from recyclers do the manufacturers work with you regarding ease of recycling?

**Ruuhwa Dann** – Batteries are a headache. Even one Lithium ion battery can cause a fire if you break it or touch it together. Circuit board is not easy to get out of the printer. It is very difficult for us to see. Manufacturers could provide directions on how to remove circuit boards from household appliances. DTSC's rules are not clear; the only way we can disassemble anything without penalty is with a manual. Just tell us the standard, and do not change it from year to year. Add onto what Ken Taggart said about DTSC's rules not being clear; we need help with this. Swipe tests and dust/air standards are consistent, but tell us what the standard is.

**Janice Oldemeyer** (Onsite Electronics Recycling) – Ironically, it is easier to recycle a CRT TV; four screws outside. Lithium batteries are a problem to remove, gel pack batteries are glued in. LCD TV's have more screws than you need. Ten percent recycled plastic does not make it easier to recycle. Today's technology is harder to recycle than older, more hazardous technologies.

**Peter Mui** – Might be too much emphasis on weight. Environmental impact of smaller devices may have greater impact. Apple ibuds are a recycling / environmental disaster. We cannot get support from manufacturer, no manuals, no access to tools. In an effort to keeping things around longer, could we have access to these schematics? We have a 70% repair rate. Example: some small appliances have a thermal fuse, if they can get to it; it can be replaced and reset.

**Walter Alcorn** – Manufacturers have thousands of authorized repair shops (often driven by warranty).

### CONCEPTS FOR ELECTRONIC WASTE PRODUCT STEWARDSHIP MODEL

**Staff Presentation: Shirley Willd-Wagner** (See presentation and discussion document.)

Strengths: Those that benefit from and use products (manufacturer's purchasers) cover costs rather than taxpayers, flexibility, reduces administration costs, can ensure safe downstream processing.

Challenges: Transition challenges, potential impact on existing businesses, potential lack of competition, today's manufacturers may have to assume responsibility for legacy devices.

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### Key Components:

- Scope – Adopt existing scheme or evaluation process, include all purchasers, and all products sold in California.
- Roles & Responsibilities – for all parties; would be spelled out in legislation and regulations.
- Financing – Sustainable and sufficient to cover all costs, internalized or point of purchase fee, equitably apportioned if internalized, no end of life fee.
- Goals / Measurement – Performance and convenience, ensure rural and year round collection.
- Plans / Budget / Reports – Stewardship Organization (SO) or individual manufactures submit documents to CalRecycle for approval, transparency, independent audits.
- Materials Management Standards – Demonstrate compliance and appropriate downstream processing, third party certification for recyclers.
- Enforcement – CalRecycle enforcement authority, DTSC management authority.
- Education & outreach – SO or individual manufacturer has lead responsibility, point of purchase information to consumers to include how and where to discard device.
- Reuse / Repair / Design for environment – SO or trade organization to develop durability standards, facilitate dismantling and repair, consider modulated fees.

(Funding slides – show how funds would flow under a visible fee model and an internalized model.)

### Open Discussion:

**Heidi Sanborn** (CPSC) – Carpet is an example of what not to do. Who pays? Likes the paint fee model; benefits for flexibility, fee at point of purchase.

**Walter Alcorn** – Compliments on putting this together. Look at how we are doing in California in comparison with other states using cost internalization model; clear choice for our industry, California is a better model. Consumer based fee. As an industry, we are trying to uncover some insights as to what is helpful, what we would advocate. We are willing to collaborate, share moving forward. Would not want to move to a system that is more burdensome.

**Peter Mui** – Absolutely agree with Walter Alcorn about the absence of data. Offer to collect hard data on price elasticity. What is the value of repair to the consumer? What would it take for the state to procure refurbished devices?

**Ken Taggart** – Blend. Stay with the existing program. California serves us well, however a couple of things are problematic and drive costs; high fee, partially due to state costs (protect public funds).

**Shirley Willd-Wagner** – What could be blended? What specifically would meld those together to reach those goals?

**Ken Taggart** – Fee is good for consumers' knowledge; problem is with the high cost for state management of the funds. Now – recyclers pay high fee to collectors (\$.20 - .25 per pound) whereas in other states, collectors are paid about a penny per pound. The only way to get away from this, is with an OEM funded program. One idea – State approves recyclers, manufacturers pay recyclers. OEMs are utilized in other states and it is cheaper than California. Keep the state to oversee, approve recyclers.

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OEMs do not care if materials come from California or not, it's not based on pounds. Goodwill in other states are happy to take the penny for collecting material.

**Ruuhwa Dann** – California program is doing great job; likes the program. How do we streamline process to be more efficient? An OEM supervised process (EPR) can squeeze the recycler; force them to commit fraud like the east coast. Successful, so why fix it. Technology streamlining. Is the collection log real? Submit through cell phone technologies (fingerprint), RFID. Use technology to be more efficient. OEM has more self-interest rather than the state.

**Janice Oldemeyer** – Agrees with Ken Taggart about high state costs, but stresses that state has to be involved. Need to streamline document requirements. Collection logs are the downfall of the program. Agrees with Roy Dann, some of the manufacturing programs are squeezing the recyclers too much. State has to stay involved in the management of the material.

**Peter Mui** – Scanning technology imbedded. Tell what is in it. RFID type could work.

**Walter Alcorn** – Caution everyone in talking about RFID, has come up periodically; would not want us to go to a system which may be more burdensome. Let us be careful not to rush to something less efficient.

### HOW MODELS ADDRESS FUNDAMENTAL GOALS AND ESSENTIAL COMPONENTS

**Staff Presentation: Shirley Willd-Wagner** – (See presentation and discussion document.)

Essential Program Components. Regardless of model, certain components must be included:

1. Sustainable funding;
2. Flexibility to accommodate changing markets;
3. Collection and convenience goals that are clear and measurable;
4. Level playing field;
5. Enforcement, inspection and oversight;
6. Regular required reporting on collection, processing recycling methods and destination; and
7. Consumer education

Fundamental goals:

1. Ensure responsible management of hazardous material;
2. Foster innovative and environmentally sound recycling technologies;
3. Provide free and convenient collection opportunities for consumers;
4. Maximize efficient recovery of material;
5. Encourage environmentally sound product design practices;
6. Encourage reuse;
7. Promote and encourage processing within CA; and
8. Address illegal dumping.

(See presentation Fundamental Goals Table.)

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### Open Discussion:

**Shirley Willd-Wagner** – Open up for discussion on any of today's topics.

**Heidi Sanborn** – Suggest 2 missing goals. 1) Want the money to be well spent, efficient use of money. 2) Worker safety as a fundamental goal. One MRF in CA has had fires caused by lithium batteries. If they have one more fire they will have to shut down. Lithium batteries are glued in and a fire hazard.

**Shirley Willd-Wagner** – We talked about batteries being considered their own category because of glued in and the fire risk; might be hard to figure how to implement; separate payments, fees, documentation?

**Walter Alcorn** – Observation on the chart. Scoring organic LEDs as a product, this is actually a good example of how it is hard to create a category to include new products. Only reason we would need OLEDs added is that you cannot tell them apart from current LEDs without testing. Criteria are good insight into suggest new products, but ultimately need to consider real world experience.

**Howard Levenson** – Demonstrates the complexity of the product selection process. No matter how we proceed, product selection, it would go through a rulemaking process.

**Peter Mui** – What data could we be collecting at the grass roots level that would help? How to Cal EPA, state and municipal governments to procure refurbished and repaired items rather than new?

**Shirley Willd-Wagner** – Could consider a guidance document that promotes EPEAT more with our local government partners and CalRecycle.

**Howard Levenson** – Also the State Agency Buy Recycled Campaign (SABRC) has some requirements for purchasing and reporting by state agencies.

**John Walker** – Different parties have different agendas, consumers, manufacturers, collectors, handlers. Large quantities of uncovered material is still coming to us because there is no other solution. Can be hidden in loads at the landfill, sometimes found in load check.

**Jack Rockwood** (ECS Refining) – There is no one here from DTSC; they are critical to much of what we do and how we do it. Are they involved?

**Howard Levenson** – They are aware of the project and have come to previous workshops. Going forward, concepts will be vetted with DTSC.

**Beverly Kennedy** – Follow on what Jack Rockwood said. Definition of e-waste was based on what was in the waste stream 14 years ago; different now. CA should revisit the definition in general.

**Howard Levenson** – Thanks for participating today and continuing to stay engaged. Our discussion really shows the challenges of expanding the existing program within the confines of the California structure. Next steps: early 2018, we'll bring a draft of our findings and possible recommendations to

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our director perhaps describing one or two feasible approaches. We hope to be in a position to address questions and issues that may come up if any legislation is discussed.

**Shirley Willd-Wagner** – We are accepting written comments. Please try to submit them by November 3<sup>rd</sup>.

Subscribe to the E-waste listserv: <http://www.calrecycle.ca.gov/Listservs/Subscribe.aspx?ListID=10>.

E-waste Futures webpage: <http://www.calrecycle.ca.gov/Electronics/Future/Default.htm>.

Contact Shirley Willd-Wagner, for questions or concerns at [Shirley.Willd-Wagner@CalRecycle.ca.gov](mailto:Shirley.Willd-Wagner@CalRecycle.ca.gov) or (916) 341-6629.