What to Watch
on State Programs

E-Scrap 2018
Jason Linnell, National Center for Electronics Recycling
National Center for Electronics Recycling:

- Non-profit 501c3, est. 2005, in Vienna, WV
- Involved in Federal, State & Association Projects
- Conduct Research, Run Collection Programs
- Partner with NERC on Electronics Recycling Coordination Clearinghouse (ERCC)
- Manage Oregon State Contractor Program, Vermont State Standard Plan, administer ERRO Illinois Manufacturer Clearinghouse
- Our Mission: Dedicated to the development and enhancement of a national infrastructure for the recycling of used electronics in the U.S.
States with E-Scrap Laws

States highlighted in **orange** have some type of electronics recycling *program* law.
25 State Program Laws + DC

- 2003: California
- 2004: Maine
- 2005: Maryland
- 2006: Washington
- 2007: Connecticut, Minnesota, Oregon, Texas, North Carolina

- 2009: Indiana, Wisconsin
- 2010: Vermont, South Carolina, New York, Pennsylvania
- 2011: Utah
- 2014: DC
- 2015-2018 - none

Percentage of Population Covered by E-Scrap Law

- 33.9%
- 66.1%

Number of New Laws

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of New Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>4</td>
</tr>
<tr>
<td>2009</td>
<td>2</td>
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</table>

ERCC
Electronics Recycling Coordination Clearinghouse
Western States - Pounds Per Capita by State 2015-2017

<table>
<thead>
<tr>
<th>State</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>4.47</td>
<td>3.89</td>
<td>3.21</td>
</tr>
<tr>
<td>Hawaii</td>
<td>2.95</td>
<td>2.85</td>
<td>2.45</td>
</tr>
<tr>
<td>Oregon</td>
<td>7.41</td>
<td>6.51</td>
<td>5.81</td>
</tr>
<tr>
<td>Washington</td>
<td>6.03</td>
<td>5.14</td>
<td>4.17</td>
</tr>
</tbody>
</table>

ERCC
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Central States - Pounds Per Capita by State 2015-2017

<table>
<thead>
<tr>
<th>State</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>3.26</td>
<td>3.17</td>
<td>3.52</td>
</tr>
<tr>
<td>Indiana</td>
<td>2.89</td>
<td>2.38</td>
<td>2.22</td>
</tr>
<tr>
<td>Michigan</td>
<td>2.58</td>
<td>2.08</td>
<td>1.62</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>5.16</td>
<td>5.48</td>
<td>5.42</td>
</tr>
</tbody>
</table>

ERCC
Electronics Recycling Coordination Clearinghouse
Eastern States - Pounds Per Capita by State 2015-2017

<table>
<thead>
<tr>
<th>State</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>4.06</td>
<td>4.18</td>
<td>3.77</td>
</tr>
<tr>
<td>Maine</td>
<td>6.39</td>
<td>6.19</td>
<td>5.59</td>
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<tr>
<td>New Jersey</td>
<td>5.17</td>
<td>6.19</td>
<td>5.89</td>
</tr>
<tr>
<td>New York</td>
<td>5.11</td>
<td>5.10</td>
<td>5.35</td>
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<tr>
<td>Pennsylvania</td>
<td>4.87</td>
<td>4.90</td>
<td>4.54</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>5.92</td>
<td>5.61</td>
<td>6.24</td>
</tr>
<tr>
<td>Vermont</td>
<td>7.82</td>
<td>7.59</td>
<td>6.91</td>
</tr>
</tbody>
</table>
Overall Trend
Cumulative Per Capita Rates Change

No State over 7 lbs per capita as of 2017

2015

2016: -6%

2017: -10%
Total Estimates Pounds Sold of Common Covered Household Electronics

<table>
<thead>
<tr>
<th>Year</th>
<th>Pounds Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2,437,179,386</td>
</tr>
<tr>
<td>2015</td>
<td>2,157,813,244</td>
</tr>
<tr>
<td>2016</td>
<td>1,535,710,334</td>
</tr>
<tr>
<td>2017</td>
<td>1,461,172,587</td>
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</tbody>
</table>

ERCC (Electronics Recycling Coordination Clearinghouse)
Used Electronics Generation and Storage Trends

**CRT TVs**
- 20% of weight generated in 2015 (excl. small appliances)
- Generation (by weight) expected to decrease 77% by 2020; stored to decrease by 89%

**Flat Panel TVs**
- Most weight stored: 35% of devices stored in 2015 (excl. small appliances)
- Generation (by weight) expected to increase 59% by 2020, with little change in volumes of devices stored in-home

**Phones & Tablets**
- Over 50% (by unit) of devices stored and generated in 2015 (excl. small appliances)
- Generation and storage (by units) expected to increase 35%-40% for both categories by 2020

**Computers**
- Little change in generation or storage in next 5 years

**Printers**
- Little change in generation or storage in next 5 years, but are the second-highest stored device (by weight)

**Wildcard: Small Appliances**
- Responsible for 55% by weight of 4.9 billion lbs of devices estimated ready for end-of-life treatment in 2015
- Not currently included in state programs in the US; estimated in-home storage of 2.5 billion units by 2020
State Legislative Activity 2018

• Down compared to 2016-17
• Legislation proposed but no further in: MA, MN, NY, PA, WI

What Passed?
• ME - changes passed 2017 (now all market share, add 3D printers)
  • Only CT, OR, and RI now left with any element of “returns” or return share
• IL – added anti-trust protections for manufacturer clearinghouse, clarified methodology for manufacturer responsibility
Major Trends and Concerns

• Still CRTs and markets – fewer stockpiling, abandonment concerns; new challenges with mercury LCDs
• Other markets – plastics: do lbs count if landfill/energy recovery?
• Changing product scope – what should be covered?
• Some industry discussions on new potential funding model, such as eco-fees, but no proposals yet
• Light-weighting – how does it impact targets and manufacturer-funded infrastructure
Illinois Convenience Model

• Instead of pounds targets, moves to convenience standard starting in 2019
  • Minimum number of collection sites on population density basis

• Counties and certain municipalities “opt in” to the manufacturer program under CERA

• Each manufacturer must provide an “e-waste program” to transport/recycle residential CEDs for the ENTIRE ROSTER of counties (at least minimum number of sites) who opted in independently......
Illinois Convenience Model

OR

• Through a “manufacturer clearinghouse” – collection of manufacturers representing 50% or more of the total collection obligations
• 2019 – ALL registered manufacturers participating through Clearinghouse
Key Facts

• 56 Counties submitted opt-in forms by the 3/1/18
• Total population covered – 11.58 million or 90% of IL population
• 87 Registered Manufacturers for 2019
• Electronics Recycling Representative Organization (ERRO) moved forward to create a CERA Clearinghouse for 2019
  • ERRO – non-profit with manufacturer board, no staff
  • Issued RFP in Feb 2018 for a Clearinghouse Administrator, selected NCER with MRM
What the Clearinghouse Does/Doesn’t Do

- **DOES** help manufacturers collectively meet the requirements to implement a statewide “manufacturer e-waste program” in Illinois through a joint Plan.
- **DOES** administer manufacturer obligation percentages within the Program Plan, request existing relationship preferences, and then allocate opt-in counties to individual manufacturers or groups.
- **DOES** set rules for manufacturer or designated group participation.
- **DOES** establish an auditing program for verifying reported pound totals and collector practices.
- **DOES** compile information required and submit Program Plan to IEPA.
Outlook

- Declining pounds present new challenges – targets, funding levels, etc.
- States still looking to modify due to challenges
- Still no new state laws (*DC) since 2011, will we ever have #26?
- Which electronics NEED to be covered/funded by laws? What criteria will we use in the post-CRT future?
- Possible federal approach - industry discussion stage
Thank You!

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www.ecycleclearinghouse.org
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