E-Waste Developments in the U.S.

by Jason Linnell
About Us

National Center for Electronics Recycling:

- Non-profit 501c3
- Located in Parkersburg, WV
- Involved in Federal, State & Association Projects
- Conduct Research, Run Collection Programs
- Spearhead the National Electronics Recycling Infrastructure Clearinghouse
- Manage Oregon State Contractor Program
- Our Mission: Dedicated to the development and enhancement of a national infrastructure for the recycling of used electronics in the U.S.
Current “State” of States

- 19 states (+NYC) with some type of e-waste law
  - CA, CT, IL, IN, HI, ME, MD, MI, MN, MO, NC, NJ, NYC, OK, OR, RI, TX, VA, WA, WV
  - Almost 164 million US residents or 53.9% of US population covered by a law
    - WI law on governor’s desk #20!

- Disposal bans no program
  - NH, MA, (AR)
Overview of States With Laws

- **States With Producer Responsibility Laws**
- **States With ARF (Consumer Fees) Laws**
- **States With Landfill Disposal Fee**
- **States With Disposal Ban/No E-Waste Law**

Percentage of Population Covered by E-waste Law:
- % Not Covered, 46.1%
- % Covered, 53.9%
Highlights

• True “Patchwork” of approaches to common challenge

• How is the program funded?
  – 1 Advanced Fee, 5 Types of Manufacturer Financing

• Which products are covered?
  – 10 different sets of product lists

• Who can use the recycling system?
  – 8 sets of “covered entities”

• Definitions, interpretations vary as well
**Types of Financing**

- **ARF** - Electronic Waste Recycling Fee, assessed on the sale of covered electronic products

- **FEE** - Manufacturer Annual Registration Fees (can be significantly reduced by establishing an approved take-back program)

- **SHARE** - Manufacturers must finance a program to collect & recycle their brand’s share of covered products, either collectively or independently

- **LBS. SOLD**
  Manufacturer pays registration fee and for collection and recycling of covered electronic devices based on their yearly sales to households

- **RETURNS 1** - Manufacturers must develop and implement their own recycling programs for their own returned products (TX requires program to collect from consumers, NC requires program to collect from collectors).

- **RETURNS 2** - Manufacturers pay for transportation and recycling of their own branded products collected by others plus a pro rata share of all orphan products
States With E-Waste Bills In 2009 Legislature

*Passed
** Passed Study Bill
<table>
<thead>
<tr>
<th>State</th>
<th>In Effect?</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>Yes</td>
<td>1/1/2005</td>
</tr>
<tr>
<td>ME</td>
<td>Yes</td>
<td>1/18/2006</td>
</tr>
<tr>
<td>MD</td>
<td>Yes</td>
<td>1/1/2006</td>
</tr>
<tr>
<td>MN</td>
<td>Yes</td>
<td>7/1/2007</td>
</tr>
<tr>
<td>MO</td>
<td>No</td>
<td>7/1/2009</td>
</tr>
<tr>
<td>OK</td>
<td>Yes</td>
<td>1/1/2009</td>
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<tr>
<td>OR</td>
<td>Yes</td>
<td>1/1/2009</td>
</tr>
<tr>
<td>RI</td>
<td>Yes</td>
<td>2/1/2009</td>
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<tr>
<td>TX</td>
<td>Yes</td>
<td>9/1/2008</td>
</tr>
<tr>
<td>VA</td>
<td>Yes</td>
<td>7/1/2009</td>
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<tr>
<td>WA</td>
<td>Yes</td>
<td>1/1/2009</td>
</tr>
<tr>
<td>WV</td>
<td>Yes</td>
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</table>

12 In Effect Above, 7 Pending Below

<table>
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<tbody>
<tr>
<td>CT</td>
<td>No*</td>
<td>7/1/2009 – likely early 2010</td>
</tr>
<tr>
<td>HI</td>
<td>No</td>
<td>1/1/2010</td>
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<tr>
<td>IL</td>
<td>No</td>
<td>1/1/2010</td>
</tr>
<tr>
<td>IN</td>
<td>No</td>
<td>4/1/2010</td>
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<tr>
<td>NC</td>
<td>No</td>
<td>7/1/2010</td>
</tr>
<tr>
<td>NJ</td>
<td>No</td>
<td>1/1/2010</td>
</tr>
<tr>
<td>NYC</td>
<td>No</td>
<td>?? – delayed plan date</td>
</tr>
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## Pounds Per Capita Collected Across State Programs

<table>
<thead>
<tr>
<th>State</th>
<th>Lbs/Capita 2007</th>
<th>Lbs/Capita 2008</th>
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</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td>N/A</td>
<td>6.34</td>
</tr>
<tr>
<td>Maryland</td>
<td>1.55</td>
<td>1.45</td>
</tr>
<tr>
<td>Maine</td>
<td>3.52</td>
<td>4.01</td>
</tr>
<tr>
<td>California</td>
<td>5.06</td>
<td>5.88</td>
</tr>
</tbody>
</table>

**NCER 2008 Per Capita Collection Index = 7%**

Absolute per capita average 3.7 in 2006 to 4.2 in 2007 to 4.5 in 2008!
Current Metrics

Most Recent Per Capita Rates

<table>
<thead>
<tr>
<th>State</th>
<th>Per Capita Rate</th>
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<tr>
<td>California</td>
<td>5.88</td>
</tr>
<tr>
<td>Maine</td>
<td>4.01</td>
</tr>
<tr>
<td>Maryland</td>
<td>1.45</td>
</tr>
<tr>
<td>Minnesota*</td>
<td>5.75</td>
</tr>
<tr>
<td>Washington**</td>
<td>5.73</td>
</tr>
<tr>
<td>Oregon**</td>
<td>5.03</td>
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</table>
Producer responsibility and recyclers

- Multiple ways to participate, some with winners/losers
- Get on state list, then start collecting or
- Get contract with manufacturer/group of manufacturers/“program” before collecting
- Limited number of customers?
- Pressure to limit collection volumes or incentive to collect?
What does it mean for collectors?

• Two ways to participate
  – Get on state list, then start collecting or
  – Get contract with manufacturer/group of manufacturers/“program” before collecting

• Not guaranteed! Or at the price you want..
  – Some states allow all, others see recyclers competing for your business
  – Local businesses can be left out
What does it mean for reuse?

- Definition! Just plug-in or disassembly allowed?
- Still a challenge – particularly w/ manufacturer financing
- Reuse sometimes prohibited – every covered device collected must be sent to recycler
  - Manufacturer could limit as well
- More recent laws – extra “credit” pounds given to manufacturer for reuse
  - IL, IN
- If allowed, how to document appropriate due diligence
Other Issues

• Collector issues
  – What if you collect too much?
  – Limit non-covered products and non-covered entities?
  – Haulers – curbside pickups covered/funded?

• System Leakage
  – Prices may be better on the “open market”

• Payment issues
  – Recyclers compete for contracts, but markets may change

• Qualification/Certification/Export
  – Handled differently at state level
The Good News
... and Bad News on Certification

• Certification is on its way!
  – Weed out bad actors, finally an answer to “who should I work with?”

• But, 2 separate certifications to choose from:
  – Responsible Recycling Practices (“R2”)
  – Basel Action Network’s “E-Stewards”

• No one certified yet!
  – Expect to see certified recyclers from both in 2010 (possibly R2 recyclers before that)
• State laws also have guidelines:
  – Maine ESM Guidelines
  – Oregon Environmental Management Practices
  – Washington ESM and P standards, plus voluntary “Preferred” level
  – Connecticut’s pending regulations

• But, not “certifications systems”
  – Third party audit doesn’t = certification

• What will happen when R2 and E-Stewards available?
What Should Collectors/Programs Do?

- Waiting game – nothing available yet
- But, ask your recycler which certification program they are pursuing
  - If not, why not?
- No need to choose at this point between programs
  - Will know more about uptake by recyclers by end of 2010
Thank You!

Jason Linnell, NCER
Phone: (304) 699-1008
jlinnell@electronicsrecycling.org

Visit us on the web:
www.electronicsrecycling.org
and www.ecyclingresource.org
Backup Slides
Product Scope By State

- **Desktops, Laptops (over 4 inch), TVs (over 4 inch), Monitors (over 4 inch)**

- **Laptops, TVs (over 9 inch), Monitors (over 9 inch)**

- **Desktops, Laptops, TVs (over 4 inch), Monitors (over 4 inch)**

- **TVs with exclusions (over 4 inch), Monitors (over 4 inch), Laptops (over 4 inch)**

- **Desktops, laptops, computer monitors, printers, and TVs**

*Product scope for MD and MN includes products triggering a manufacturer obligation to participate in the program.*
Adding Covered Entities
Our Patchwork Quilt

- Households
- Small Businesses
- Public Schools

- Households Only
- Small Business
- Non-Profits
- Any Entity with fewer than 7 Devices

Consumers Only (Who Use Computer Equipment for Home or Home Business Use)

- Households
- Small Gov’t
- Small Business
- School Districts
- Charities

- Households & Schools

- Households
- Small Business with fewer than 7 employees

Rhode Island
NYC