Assessing and Documenting the Costs of Compliance With E-Waste Take Back Legislation
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Consumer Electronics Association

• Represents more than 2,000 companies in the $165 billion U.S. consumer electronics industry
• Membership includes component suppliers, device manufacturers, retailers, distributors and service providers
Consumer Electronics
U.S. Industry Initiatives

- Research and analysis
- Public policy
- Industry standards
- Consumer education
- Promotion and recognition
- Other initiatives and current challenges
Research and Analysis

• CEA is the leading market research entity for consumer electronics in the U.S.
  – U.S. TV shipments
  – Consumer usage of electronics

• Good data and analysis supports good decision-making
Promotion & Recognition

• International CES
  - Company exhibits; Sustainability TechZone; conference sessions; eco-design award
Consumer Education

www.digitaltips.org/green
E-Waste Compliance: The Basics

• Now 23 states with some form of e-waste mandate
  – First state was California: financing based on consumer fee
  – The next 22 states: producer responsibility in many forms

• Burden on manufacturers vary greatly across the 22 states
Manufacturer Responsibility Concept

• AKA “producer” responsibility
• Still a relatively new concept in the United States
• Mandated vs. voluntary
• Very different operationally from manufacturing process
• Differing manufacturing models suggest that takeback models may also differ
Manufacturer Responsibility Concept (cont)

• Reverse distribution challenges
  – May, but often does not mirror new product distribution system
    • Many manufacturers make products and then sell to distributors to get products to consumers
      – Limited interaction between most manufacturers and consumers
      – Most interaction via media
    • New product distribution systems highly advanced
      – Not driven by economics, no $ pull like new
Manufacturer Responsibility Concept (cont)

• For all companies environmental compliance costs are to be minimized
  – A cost of doing business
  – Do not generate revenue
  – Usually are not integrated into a company’s overall business model
  – So what are those costs?
Compliance Costs

• Operational costs
  – For larger manufacturers this is usually the largest cost
  – Includes logistics, recycling services, vendor due diligence, etc.

• Other compliance costs
  – The biggest burden for smaller manufacturers
  – Registration fees, reporting, data tracking, plans, determining compliance requirements
Operational Compliance

• Operational arrangements vary across the industry
  – Manufacturer consortia (MRM)
  – Direct manufacturer/recycler arrangement
    • Usually made with larger recyclers that operate across states
  – Distributor/retailer arrangements emerging
  – Direct arrangements between manufacturers and (many, many) collectors is more rare
Other Compliance/Paperwork

• Manufacturer registration required in 20 states
  – Registration fees now required in 18
    • All separate forms
  – Per manufacturer fees across states range from $50,000 to $100,000+

• Recycling plans
  – Sometimes embedded in registration process (NY)
Compliance/Paperwork (cont)

• Determining compliance requirements
  – 12 different sets of product scope
  – 9 different sets of “covered entities” (who is entitled to access the state recycling system)
  – Sometimes mandates very specific, sometimes not

• Data tracking and reporting
Other Drivers

• Brand risk
  – A very high hurdle for recyclers looking to do business with manufacturers
  – CANNOT wind up on 60 Minutes

• Industry dynamics
  – Overall health of the industry
  – Companies and products wax and wain

• Technology in constant change
2010 CEA Consumer Survey

- Fielded in late July during the period July 22-25, 2010 by the research firm ORC
- Results weighted to reflect national demographics
- The margin of sampling error at 95% confidence for aggregate results is +/-3.1%. Sampling error is larger for subgroups of the data. As with any survey, sampling error is only one source of possible error.
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Usage of Non-DTVs

- **65%**
  - Own at least one (1) Non-DTV

**Reported Activities**

- **7%**
  - Indicate not using a Non-DTV

- **93%**
  - Report USING at least one (1) Non-DTV within the past 12 months

- **74%**
  - To watch TV using cable, satellite or fiber to the home service

- **68%**
  - To watch movies on a DVD player, VCR player or Blu-ray player

- **39%**
  - To play games

- **34%**
  - To watch TV using antenna service and a converting box

Source: CEA Market Research

Thinking about your non-digital TVs, how many, if any, have been used in the PAST 12 MONTHS, that is, used to watch TV, gaming, etc?

Base: U.S. Adults that OWN a NON-DTV (n=628)
Awareness of Where to Recycle CE

Among adults that …

Overall

Aware

Unaware

64%

58%

36%

62%

81%

42%

38%

19%

Trashed CE

Gave Away/Donated CE

Recycled CE

Source: CEA Market Research
Q. Do you know where you can recycle consumer electronics products?
Base: U.S. Adults (n=1000)
## Removal Action

### % Devices Trashed/Donated/Recycled

<table>
<thead>
<tr>
<th>Device</th>
<th>Trashed</th>
<th>Donated</th>
<th>Recycled</th>
<th>Net CE Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>7%</td>
<td>15%</td>
<td>27%</td>
<td>45%</td>
</tr>
<tr>
<td>Cell phone</td>
<td>5%</td>
<td>16%</td>
<td>28%</td>
<td>48%</td>
</tr>
<tr>
<td>PC monitor</td>
<td>4%</td>
<td>25%</td>
<td>31%</td>
<td>48%</td>
</tr>
<tr>
<td>Desktop PC</td>
<td>3%</td>
<td>15%</td>
<td>15%</td>
<td>25%</td>
</tr>
<tr>
<td>Laptop</td>
<td>10%</td>
<td>4%</td>
<td>15%</td>
<td>24%</td>
</tr>
<tr>
<td>VCR</td>
<td>5%</td>
<td>6%</td>
<td>13%</td>
<td>25%</td>
</tr>
</tbody>
</table>

### Source

Source: CEA Market Research

Q. Thinking over the PAST 12 MONTHS, how many of the following devices, if any, have you thrown in the trash? Base: U.S. Adults that have thrown away CE (n=135)

Q. Still thinking of the PAST 12 MONTHS, how many of the following devices that you owned and used, if any, have you given away or donated? Please only refer to devices given away or donated and NOT recycled. Base: U.S. Adults that have donated CE (n=476)

Q. And still thinking of the PAST 12 MONTHS, how many of the following devices, if any, have you RECYCLED? Base: U.S. Adults that have recycled CE (n=253)
Donated CE Likely to go to Family & Friends

Charitable organization: 36%
Family member not living with you: 29%
Friend not living with you: 23%
Family member living with you: 5%
Local school: 3%

Over half (57%) indicate giving CE devices away within their network of family and friends.

Source: CEA Market Research
Q. Thinking about the CE device you gave away or donated MOST RECENTLY, who did you give it to? Would you say to a . . .
Base: U.S. Adults that Donated CE within the past 12 months (n=476)
There was a fee for recycling electronics and you didn’t want to pay it

You couldn’t find anyone that wanted the product

You didn’t know of any recycling programs for electronics

You needed to dispose of the product and it was easiest to put it in the trash

Trashed CE

Source: CEA Market Research
Q. What was the reason or reasons that you threw any of the products you just mentioned in the previous question in the trash?
Base: U.S. Adults that have thrown away CE within the past 12 months (n=135)
Recycling Centers Top Method for Recycling CE

- Dropped off at a recycling center: 26%
- Dropped off at a local CE retailer: 20%
- Dropped off at a local recycling drive: 19%
- Placed in a recycling bin and put out with your regular trash pickup: 16%
- Mailed to a recycling center or program: 7%

Source: CEA Market Research
Q. Thinking about the CE device you recycled MOST RECENTLY, how did you recycle it? Was it . . .
Base: U.S. Adults that Recycled CE within the past 12 months (n=253)
For More Information....

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