Definitions and Background

• The definition of WEEE Subject to Taiwan’s EPR Law.
• RRW e-waste in charge by RFMB, EPAT.


● RRW: Regulated Recycling Waste that regulated by Waste Disposal Act
● Hazardous Waste: Produced by industry that is toxic or dangerous and the concentration or volume of which is sufficient to influence human health or pollute the environment
● Under current framework, WEEE from industry is categorized as hazardous waste in disposal and import/export stages

HID  CCFL  LVD
Current Status of WEEE Regulation

Producer

Fee

Fund Management

Recycling Fund Management Board

Recycling Rate Review Committee

Auditing and Certification Supervisory Committee

The operational measures of auditing and certification of RRW

Management measures for application and review of subsidies regarding the collection and recycling of RRW

Recycling System

Retailers

Collector

Recycler

Subsidy

Waste Appliance Take-back Policies

Standards for the operations and facilities for the collection, storage, transportation and recycling of RRW

The management measures of scale, registration, cancellation of registration, reporting and other relevant matters of the collection and recycling enterprises

The management measures for manufacturers and importers of new RRW products
2013~2014 update
• Differential Fee:
  – Recycling fees for environmental friendly Electrical and Electronic Equipment are 30% lower.
• New RRW:

Pad
CCFL
LVD
Current Status of E-Waste Industries

- The number of Collectors increased while the number of Recyclers decreased.
- EPAT updated materials recycling and recovery specifications for ESM.
  - Fluorescent powder (CRT TV: 0.006 kg/unit, CRT monitor: 0.0025 kg/unit) (in draft)
  - Coolant (Air conditioner: 0.20 Kg/unit, Refrigerator 0.03 kg/unit)

<table>
<thead>
<tr>
<th>Item</th>
<th>Collectors</th>
<th>Recyclers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Appliance</td>
<td>246</td>
<td>12</td>
</tr>
<tr>
<td>IT Equipment</td>
<td>241</td>
<td>15</td>
</tr>
<tr>
<td>Lighting Blub</td>
<td>190</td>
<td>6</td>
</tr>
</tbody>
</table>
Current Status of E-Waste Industries

- Summary of technologies/processes used and level of environmentally sound management (ESM):
  - Use recycled materials from waste lightings to make a new one.
  - Pilot study of the LCD panel recycling process.

- HCFCs has been prohibited in Taiwan since 2011, So the recyclers have to adjust their disposal treatment processes for refrigerator, which using the Hydrocarbon blowing agent (Cyclopentane) as refrigerant, for safety purpose.
## Other Relevant Projects

<table>
<thead>
<tr>
<th>Item</th>
<th>technology</th>
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</thead>
<tbody>
<tr>
<td>Printed Circuit Board</td>
<td>Printed Circuit Board recycling technology</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>PUR and ABS recycling technology</td>
</tr>
</tbody>
</table>
| LCD TV and monitor   | • LCD Panel treatment technology  
                      | • LC recycling technology                      |
| CRT TV and monitor   | Funnel glass recycling technology               |
| Lighting Bulb        | • Recycle Rare Metals (Eu and Y) from Fluorescent powder  
                      | • Fluorescent powder purification               |

L.C. means liquid crystal
Prospects and Challenges

• Encourage green design and enhance treatment performance by economic means.

• Improve the system performance and treatment technology
  – 1. CRT glass and LCD panel treatment.
  – 2. HCFC collect safely.
Thank You for Your Attention