ABOVE AND BEYOND ELECTRONICS RECYCLING

GEORGIA RECYCLING COALITION CONFERENCE 2014
CHASE YANCEY- PLASMET E-SOLUTIONS, LLC
WWW.PLASMET.COM
PlasMet e-Solutions was founded in 2011 to meet the growing need for environmentally responsible recycling of obsolete and end of life electronic equipment.

In 2013 PlasMet started construction on one of the most state-of-the-art shredding and mechanical processing facilities in the country. The operation was commissioned in May 2014.

Through innovation and countless years of research and development, we will be able to recycle over 4 million pounds of obsolete electronics per month.
PlasMet’s Processing Facility
What do we do?

ELECTRONICS RECYCLING

With PlasMet’s ZERO landfill policy, your end-of-life electronics will be ensured a new lifecycle while removing the burden of managing any of the hazardous materials that are present in almost all electronics.

IT ASSET MANAGEMENT

Through the customized PlasMet reuse and recovery model, we are able to maximize the return on our client’s investment and the lifespan of used electronic equipment.

DATA SECURITY

PlasMet ensures that all data bearing devices are managed properly through our secure data destruction processes, guaranteeing complete data destruction and environmentally sound recycling.
Electronics Recycling Overview

• Obsolete electronic equipment is the fastest growing waste stream in the world.

• In 2013 the United States generated 3,420,000 tons of E-waste. Of that, only 29.20% was recycled.
The number of electronic devices sold in the United States has risen to nearly 500 million in 2013 alone. As devices continue to get cheaper and more readily available, society is constantly upgrading to the newest gadget on the market. The question is this: What do that do with the old one?

Why is Recycling Electronics Important?

Many consumers are still unsure about what to do with their old devices. According to one study, nearly 65% of old devices are put in a drawer or stored in a basement. Why?

1) Consumers do not have a convenient way to recycle their old equipment.

2) Consumers are not comfortable recycling equipment that contains their personal information.
E-Waste Generated and Recycled 2000-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Total E-Waste Generated</th>
<th>E-Waste Trashed</th>
<th>E-Waste Recycled</th>
<th>Percent Recycled</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1,900,000</td>
<td>1,710,000</td>
<td>190,000</td>
<td>10.0%</td>
</tr>
<tr>
<td>2005</td>
<td>2,630,000</td>
<td>2,270,000</td>
<td>360,000</td>
<td>13.7%</td>
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<tr>
<td>2007</td>
<td>3,010,000</td>
<td>2,460,000</td>
<td>550,000</td>
<td>18.3%</td>
</tr>
<tr>
<td>2009</td>
<td>3,190,000</td>
<td>2,590,000</td>
<td>600,000</td>
<td>18.8%</td>
</tr>
<tr>
<td>2010</td>
<td>3,320,000</td>
<td>2,670,000</td>
<td>650,000</td>
<td>19.6%</td>
</tr>
<tr>
<td>2011</td>
<td>3,410,000</td>
<td>2,560,000</td>
<td>850,000</td>
<td>24.9%</td>
</tr>
<tr>
<td>2012</td>
<td>3,420,000</td>
<td>2,420,000</td>
<td>1,000,000</td>
<td>29.2%</td>
</tr>
</tbody>
</table>
Market Drivers

- Business-vs-Consumer
  - Commercial and enterprise companies recycle nearly 80% of the electronics in the US.

- State Legislation
  - States continue to pass laws which prohibit electronics from entering the landfill.
  - OEM take back programs.
What Can Be Recycled?

- Desktop Computers
- Laptops
- Monitors
- Televisions
- Speakers
- Keyboards
- Mice
- VCR’s
- DVD Players
- Remote Controls
- Cell Phones
- Home Phones
- Stereos
- Circuit Boards
- Toasters
- Blenders
- Printers
- Cameras
1. Manual disassembly

- Remove any hazardous material like mercury or lead.
- Recovery parts for resale or refurbishment.
- Remove items that are too large to shred.
2. Shredding / Sorting
- Separates the plastics and metals.
- Maximizes the recovery
- Limits waste from entering the landfill
Challenges in Electronics Recycling

CRT Monitors and TV’s
Why Do Recyclers Charge for TV’s?

• Cathode Ray Tubes (CRT) make up a significant percentage of the electronic waste stream
• CRT’s contain leaded glass which is costly and difficult to recycle
• Because of this, CRT’s continue to be exported to underdeveloped countries where valuable commodities are removed and the CRT tubes are dumped in the landfill
Cherry Picking - When collectors allow employees or residents to pick through the equipment and take what they want.
Challenges in Electronics Recycling

Why is cherry picking bad??

1) Data Security
   • Your residents and customers have trusted you to take their equipment and make sure it gets recycled responsibly.

2) Damage to Working / Valuable Equipment
Certified or Not Certified?
R2 or e-Steward? Both?

• R2 - Responsible Recycling
• RIOS - Recycling Industry Operating System
• Quality Environmental Health and Safety Management System
• Developed by a broad base of electronics recyclers, manufactures, trade groups and the EPA
• Over 500 R2 Certified Companies

• Created by the Basel Action Network (BAN)
• Created after R2
• To be certified a company must certify all locations
• Over 100 Certified Companies
THE END!

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