



# **Sims Recycling Solutions & the Status of E-Waste Legislation in the U.S.**

**New York Federation of Solid Waste Association  
Conference**

**May 18, 2010**

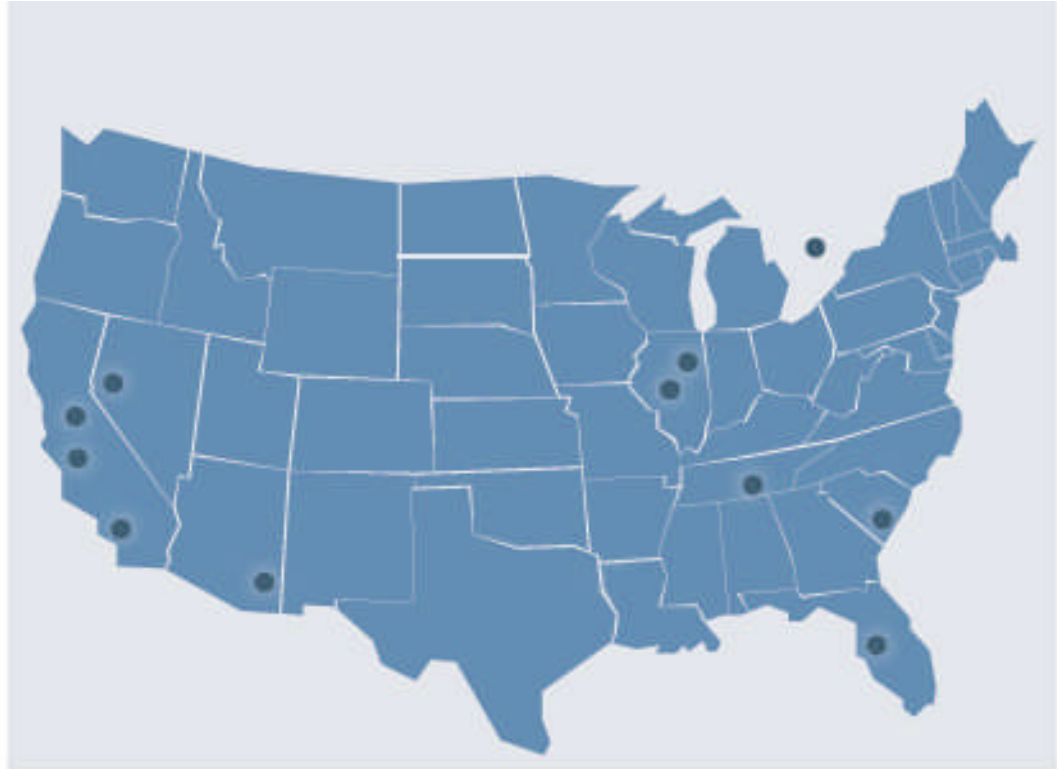
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# Sims Recycling Solutions: Company Background

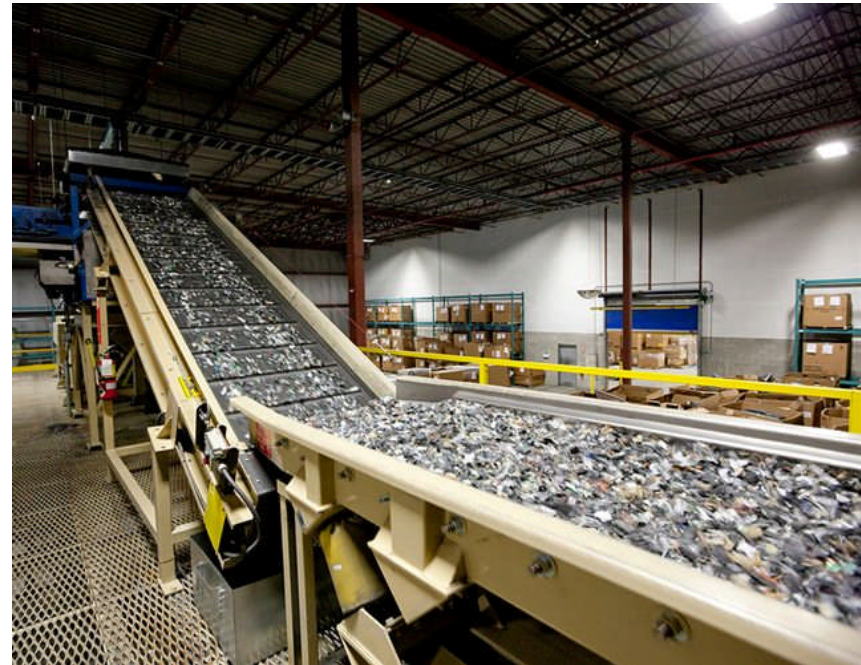
- **Electronics Recycling Division of Sims Metals Management - world's largest metals recycler (public company NYSE/ASX)**
- **More than 90 years experience in recycling business**
- **Global electronics recycling company with:**
  - 39 locations world wide
  - 11 facilities in North America
  - new facility in NJ by late 2010

# North American Facilities

Brampton, Ontario  
Columbia, SC  
Franklin Park, IL  
San Francisco, CA  
Nashville, TN  
Los Angeles, CA  
Reno, NV  
Sacramento, CA  
Tampa, FL  
Tucson, AZ  
West Chicago, IL



# Sims Recycling Solutions: Processing



- State of the art high capacity shredders & advanced metals & plastics separation equipment, ensuring domestic recycling
- Capacity to process 250 million pounds of electronics annually

# OEM Compliance Group

- **Provide compliance services to electronics manufacturers affected by state back laws:**
  - Establish consumer collection programs
    - manage infrastructure & logistics
  - Process collected materials
  - Disposition management
  - Data Tracking & Reporting
  - Public Education
  - Provide ongoing legislative tracking & analysis

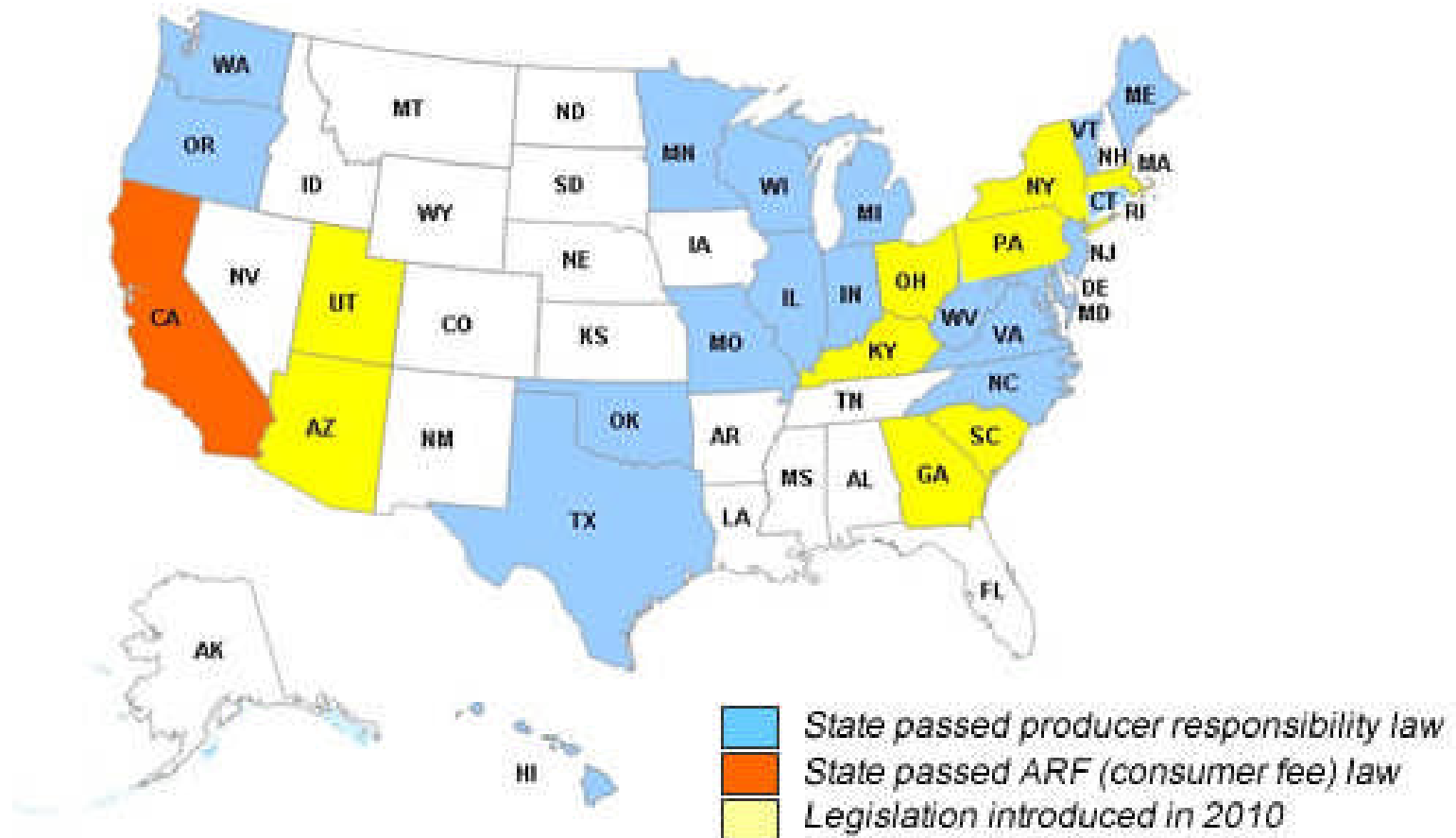
# Why is E-Waste Disposal an Issue?

- **Electronic devices safe to use for intended purpose, but potential damage to environment if not disposed of correctly:**
  - Lead from cathode ray tubes
  - Mercury tubes in flat screens
  - Heavy metals associated with circuitry
  - Rechargeable batteries
- **According to U.S. EPA**
  - 2.25 million tons of electronics discarded annually
  - Comprise less than 2% of municipal waste stream, but expected to grow
  - Only 18% is currently being recycled (414,000 million tons)
  - Materials are recyclable, but lack of permanent collection infrastructure

# E-Waste Legislation in Action

- **21 states & NYC have passed some type of e-waste take back law since 2003**
  - California 1<sup>st</sup> to implement a program in 2003 - not producer responsibility, but Advanced Recovery Fee model (ARF)
    - Consumers (households & businesses) pay fee based on screen size at POS
    - State administers & regulates retailers, collectors & recyclers
    - 1<sup>st</sup> state to implement take back program
    - No other states follow
  - 20 other states & NYC have implemented producer responsibility model laws
    - Many variations from state to state
    - Consumer never pays unless there is “premium” service
- **New legislation introduced in 9 states in 2010**
- **No federal legislation under consideration**

# States with E-Waste Take Back Laws or Bills



# Types of Electronics Covered by Laws

## Main electronics covered by product stewardship laws:

- Computers
  - Not covered product in CA & ME
- Laptops
- Monitors (screen size varies by state)
- Televisions (screen size varies by state)
  - Not covered product in some states with Dell Model program (TX, OK, MO, VA)

## Other Electronics sometimes included:

- Printers (7 states)
- DVD Players, VCRs, Fax Machines
- Game Consoles & Digital Picture Frames (Maine)
- Digital Music Players

# Types of Consumers Covered by Laws

- **Households**
- **Small businesses or all businesses**
  - Definitions for small varies from 10 to 100 FT employees
- **Small gov't entities or all gov't entities**
- **Charities**
- **Public Schools**
- **Private schools**

# Producer Responsibility Models

## 4 Models

- DELL Model
- Pay to Play Model
- State Plan Model
- Obligation/Open Design Model

# DELL Model

- **OEMs must set up a collection/recycling program**
  - **No quantitative obligation**
  - **Allows for leeway on how devices are collected/convenience**
    - Mail, events, partner with local gov orgs or non-profits
  - **IT devices covered, TVs not (except in MI & HI)**
  - **No landfill ban**
  - **Texas, Oklahoma, Virginia, Michigan, Hawaii (Ohio bill)**
  - **Hybrid of model in North Carolina law & SC bill**
    - No obligation for IT, market share for TVs
  - **Program results**
    - Texas ('08-'09) - .5 lbs per capita
      - 12.4 million pounds/24.7 million population
    - Virginia ('09-'10) - .95 lbs per capita
      - 7.5 million pounds/7.8 million population

# Pay to Play Model

- **OEMs required to set up take back program or pay fee to state in lieu of program**
  - **No quantitative obligation**
  - **Allows for leeway on how devices are collected/convenience**
  - **No landfill ban (WV passed ban this year, starts 2011)**
    - Mail, events, partner with local gov orgs or non-profits
  - **Maryland**
    - \$10K initial registration fee
    - \$5K annually if no program
    - \$500 annually if program
  - **West Virginia**
    - \$10K initial registration & \$5K annually if no program
    - \$5K initial registration & \$500 annually if program in place

# State Plan Model: Option 1

## OEMs are given a collection obligation to meet

- Obligation based on either
  - Market share – sales data
  - Return share – studies from other states for 1<sup>st</sup> year & then actual collection volumes
  
- **Option 1: Join state plan**
  - State or state's rep establishes collection points & authorizes consolidators & recyclers
  - OEMS pay:
    - for all facets of program via flat per lb fee to state or state rep
    - for consolidation/recycling services via per lb fee
      - State sets cap on per lb fee

## State Plan Model: Option 2

- **Option 2: Create an individual or collective plan**
  - Require 1 (or more) convenient collection option/site in every county and every city with 10,000+ (OR, WA), 3 sites per county (VT)
  - Individually or collectively account for 5% of market share in state (ie: Dell, MRM)
  - Collected materials must be independently sampled annually
  - Penalty for not meeting obligation
    - State plan per lb fee for obligation not met plus 10%

## State Plan Model cont'd

- **States with some form of state plan:**
  - Maine, Connecticut, Rhode Island, Vermont, Oregon, Washington
- **All states have landfill bans pending or in place**
- **Program results**
  - Maine – per capita figures (2006 -2009)
    - 3.16 lbs/ 3.57 lbs/ 4 lbs/ 6 lbs
    - 4.1 to 7.9 million lbs collected/1.3 million population
  - Washington - 5.78 lbs per capita (2009)
    - 38.5 million pounds/6.6 million population
  - Oregon – 4.96 lbs per capita (2009)
    - 18.9 million pounds/3.8 million population

# Obligation/Open Design Model

- **OEMs required to set up program, obligation based on:**
  - return share
  - market share
- **Leeway as to how/where programs are set up**
  - Prescriptive in some states – implied collection in every county in NJ
- **Incentives to collect more than required**
  - Carryover credits – used for next year's
  - Collection of other types of covered devices counts towards obligation

## **Incentives to ensure all areas of state receive collection**

- Extra credit for materials collected from areas defined as rural (population based) or underserved (lacking consistent collection infrastructure)
- **Landfill ban pending or in place**

# Obligation/Open Design Model cont'd

- **Minnesota, Illinois, Indiana, Wisconsin, NJ, (NY bill)**
- **Penalties for not meeting collection obligation**
  - Per pound fee for uncollected amount
    - Tiered amounts depending on level of amount uncollected
      - Miss goal by 10% - per lb fee is 30 to 40% higher than typical cost
      - Missed goal by 20% - per lb fee is 50% higher than typical cost
- **Program results**
  - Minnesota
    - 6.47 lbs per capita ('07-'08)
    - 5.84 lbs per capita ('08-'09)
    - 33.6 & 30.2 million lbs collected / 5.2 million population

# New York Bill

- **NYS bill (SB 6047) – Senator Thompson**
  - Must have at least one method in every city or county with 10,000+
  - Only have to collect brand items or other brands of same product type when purchase is made
  - Obligation based on market share of per capita figures x state population
    - Per capita figures are respectively 3 lbs, 4 lbs & 5 lbs for 1<sup>st</sup> 3 program years
  - Covers gamut of materials and consumer types
  - Implementation 7/1/11

## More Information

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