

RECHARGING THE PLANET.
RECYCLING YOUR BATTERIES.™



The New Face of Battery Recycling

Evolving to a New Paradigm

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Eastern US Account Manager



Agenda

- Batteries in the US Marketplace: Facts and Trends
- US Legislative Framework for EPR and Battery Recycling
- Battery Regulation Changes 2015 (US)
- Call2Recycle Program Overview
- Accepted Materials in the US Through Call2Recycle
- How Are Batteries Recycled
- How Accessibility Impacts Recycling Programs
- Case Studies
- Q&A



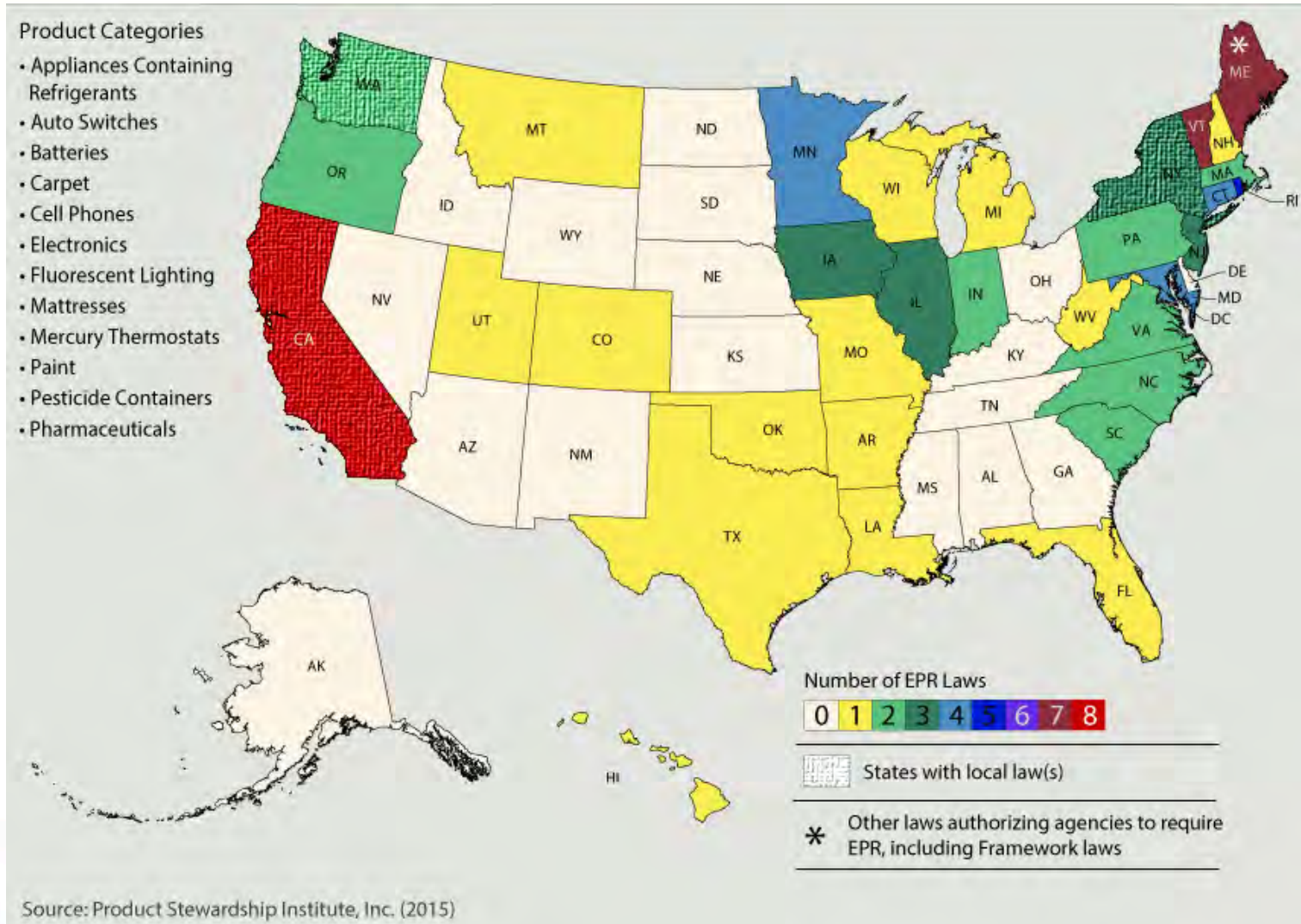
Batteries in the US Marketplace: Facts and Trends

- 3 billion batteries sold annually in the US; 20% of batteries are rechargeable
- Primary batteries (single-use) are not regulated in US
- Rechargeable batteries are regulated as a universal/special waste
- Strong growth in cordless/portable products changing the electronics product landscape: Li-Ion powered products
- Decline of Ni-Cd
- Evolution of Li-Ion chemistry and applications



US Legislative Framework for EPR

- Product Categories
- Appliances Containing Refrigerants
 - Auto Switches
 - Batteries
 - Carpet
 - Cell Phones
 - Electronics
 - Fluorescent Lighting
 - Mattresses
 - Mercury Thermostats
 - Paint
 - Pesticide Containers
 - Pharmaceuticals



US Legislative Framework for Battery Recycling

- **Vermont:** First US state to require single-use producers develop a program for collecting and recycling spent primary batteries
- **New York:** Retailers selling rechargeable batteries required to accept used batteries for recycling, display signage, and educate customers on recycling
- **Other States to Follow:** California, Connecticut and Texas recently introduced bills specific to battery recycling product stewardship
- **Complex Framework:** On top of emerging state-based battery stewardship regulations, the US DOT's regulations on the transportation of hazardous materials make the already complex battery environment even more challenging



Call2Recycle, Inc.



Accepted Materials in the US Through Call2Recycle

Lithium Ion (Li-Ion)



Small Sealed Lead Acid (SSLA/Pb)



Cellphones



Nickel Metal Hydride (Ni-MH)



Nickel Zinc (Ni-Zn)

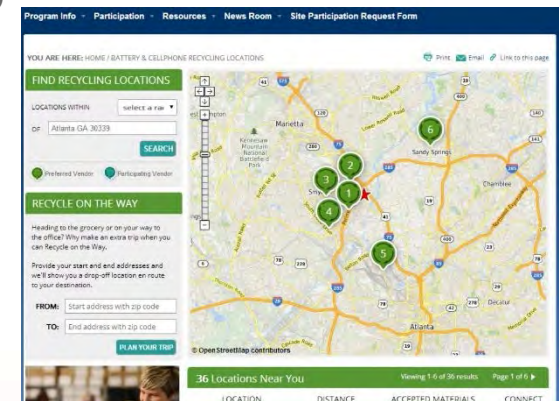


Nickel Cadmium (Ni-Cd)



Call2Recycle Program Overview

- **No cost to ship:** Detailed instructions on how to ship batteries free of charge are provided with your collection materials
- **Flexible Options:** Participants can ship in bulk or using the collection boxes
- **Participating locations listed on website directory:** Locator finder allows consumers to find sites closest to them and provide additional opportunities to promote sustainability efforts



Program Support

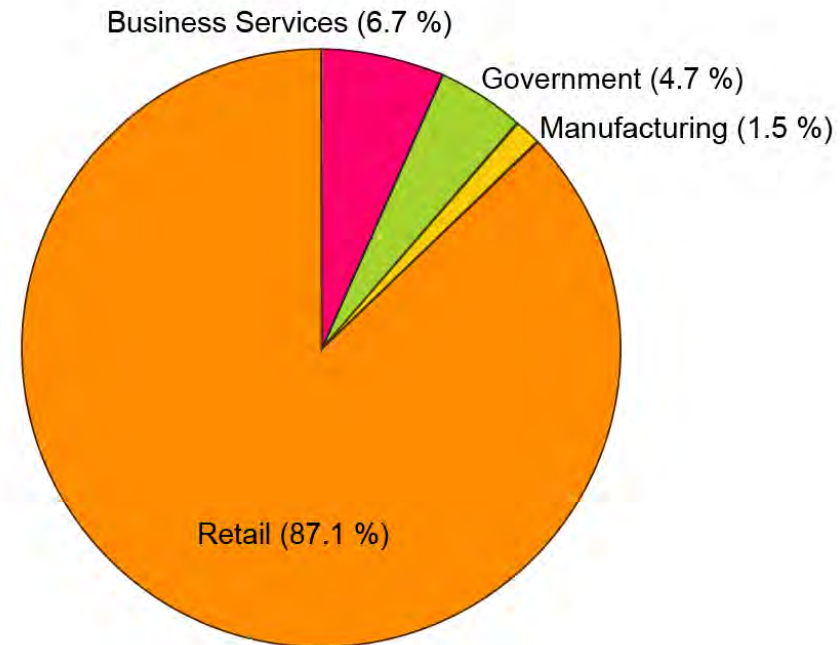
- Marketing support materials:** work closely with municipalities to help promote your recycling program to residents and demonstrate green efforts
- Certificates of recycling:** available along with training materials, including recycling poster and detailed safety & shipping guidelines
- Reports:** Current collection information, including 3-year trend; Detailed reports can provide insights on high performing collection sites/regions to replicate best practices across your jurisdictions.



How Call2Recycle Determines Accessibility

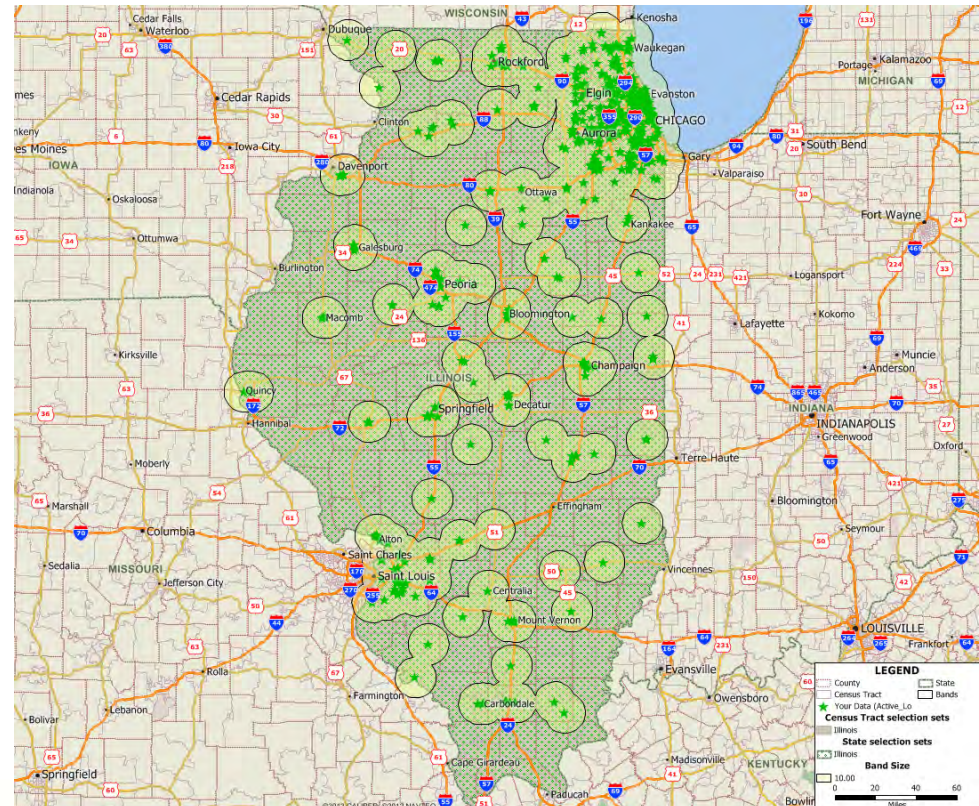
- Define a public facing collection site
- Identify who is participating as a public collection site
- Analyze collection site network
(Conventionally, a 10-mile radius has been used as the appropriate radius.)

Through May 2015, about 90% of the U.S. population was covered in Call2Recycle's accessibility measurement



Battery Recycling Accessibility in Illinois

- 91% accessibility rate – slightly outpaces US standard
- 595 active public sites
- 95% retail, 2% municipal, 3% other businesses
- Retail sites collected nearly 80,000 pounds of rechargeable batteries last year
- Municipal sites collected nearly 2,000 pounds of rechargeable batteries



Successful Municipal Battery Recycling

- **The Onondaga County Resource Recovery Agency (OCRRA)**
 - 33 of 35 municipalities participating
 - Raise awareness on website and newsletter
 - Easily accessed municipal drop-off locations on top of 50+ Call2Recycle drop-off locations, including retail
 - Compliance with DOT regulations without incurring additional costs
 - X lbs. recycled since joining program in XX
- **Austin Resource Recovery**
 - Zero Waste goal to reduce waste sent to landfill by 90% by 2040
 - Household Hazardous Waste Facility accepts residents' batteries for recycling
 - Monthly average shipment of 1,400 -2,000 lbs. of batteries
 - X lbs. recycled since joining in 2004



Questions?



- **Tim Warren, Eastern US Account Manager**
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- **Call2Recycle Customer Service**
877-723-1297 or customerservice@call2recycle.com
- call2recycle.org/municipalities



1 COLLECTION

Public Agencies
Retailers
Businesses
Municipalities

Call2Recycle Physical Flow: United States

2 SORTING

Recording and sorting by chemistry

INMETCO *Ellwood City, PA*
WISTRON *McKinney, TX*

3 PROCESS & RECOVERY

Processed by chemistry type

Li-Ion Batteries

SSLA/Pb Dry Cell Batteries

Ni-Cd, Ni-MH, Ni-Zn

Cellphones

GlencoreXstrata

Sudbury, ON
Canada

COBALT RECOVERED

Terrapure VSC

Ville Ste-Catherine, QC
Canada

LEAD RECOVERED

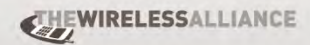


Eagan, MN

INMETCO

Ellwood City, PA

NICKEL-IRON STAINLESS STEEL
& CADMIUM RECOVERED



Boulder, CO

METALS RECOVERED OR REFURBISHED/RESOLD
PROCEEDS SUPPORT PROGRAM
AND PUBLIC EDUCATION

How Call2Recycle Recycles your Batteries



<http://www.call2recycle.org/battery-video/>

