



Leading the charge for recycling.™

PROGRESS ON EPR FOR SPECIFIC MATERIALS - BATTERIES -

Federation Conference 2022
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Presented by: Todd Ellis

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About Call2Recycle

- Non-profit founded in 1994 to address the emergence of EPR legislation, operating with a commitment to safety and environmental excellence.
- Funded primarily by battery and battery-containing product manufacturers (our Stewards) and, more recently, fee-based services, to responsibly collect and recycle batteries at end of life across the U.S.
- In the U.S., we're primarily a voluntary program except in certain states (e.g., VT, MN, NY) where we design and administer all features of a battery stewardship program (public education, collection, and recycling) where collections of some (but not always all) chemistries are mandated.



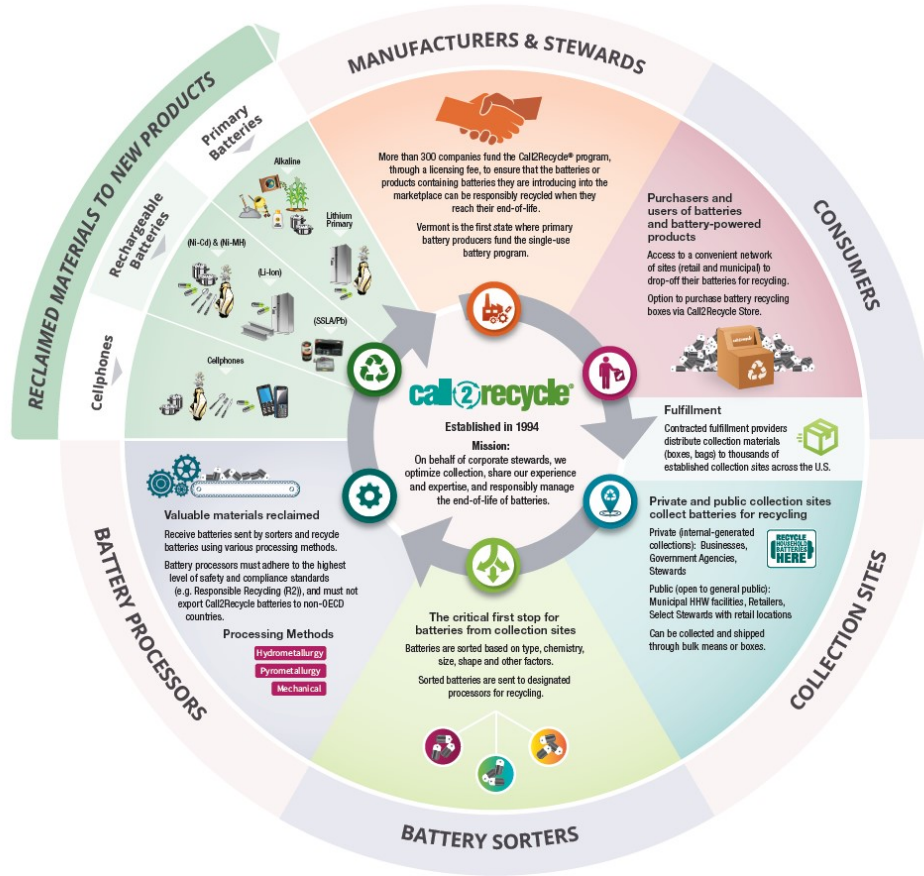
Our Purpose

Call2Recycle's purpose is to safely transition communities to a battery-powered world through climate-responsible solutions.



Delivering on Our Purpose

How the Program Works



Capabilities



Stewardship Services

Fulfills manufacturer obligations in the U.S., including compliance with extensive state and federal regulations.



Collection & Recycling

Private or Public Collection Program; small or large quantities; flexible, safe and convenient options.



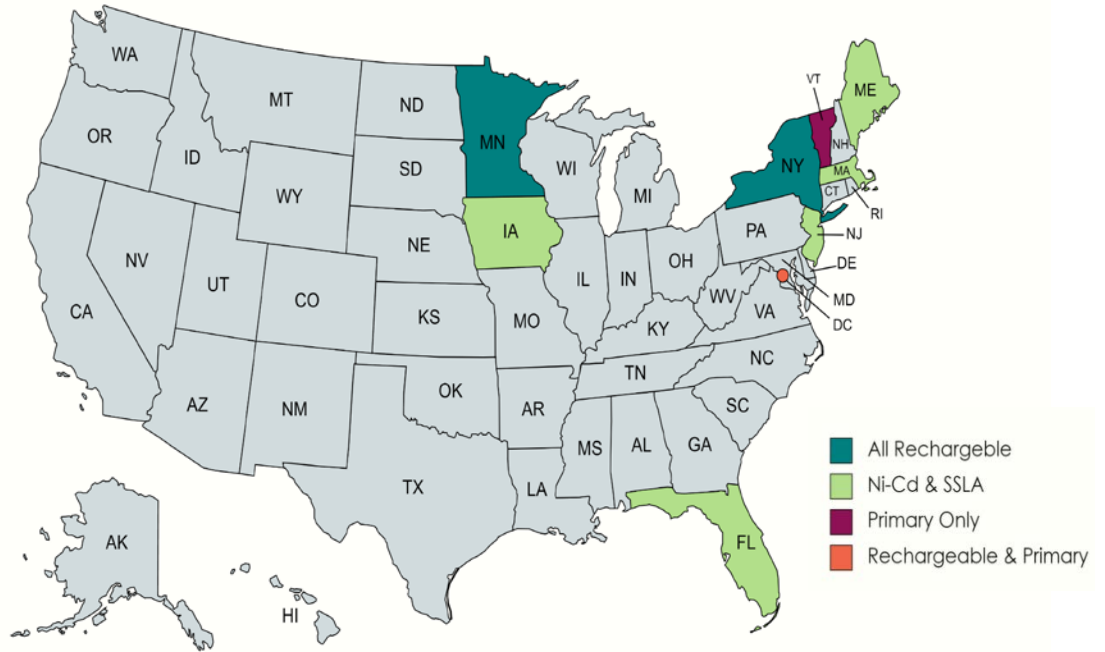
Safety Services & Solutions

Customized safety solutions for battery & product returns, damaged, defective, or recalled batteries; safe handling, storage, and shipping



Battery Laws

Requiring Producers to Fund Collection & Recycling

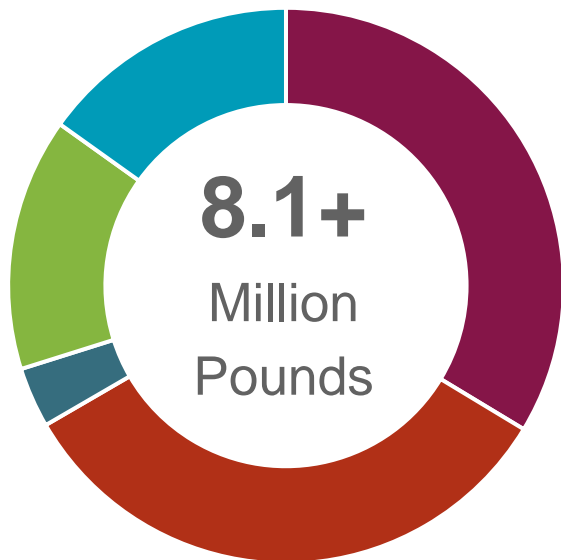


Current State

2021 U.S. Battery Collections & Accessibility



84% of the U.S. population lives within 10-miles of an available Call2Recycle collection site



- Single-Use (34%)
- Li-Ion (33%)
- Ni-MH (3%)
- Ni-Cd (15%)
- SSLA/Pb (15%)

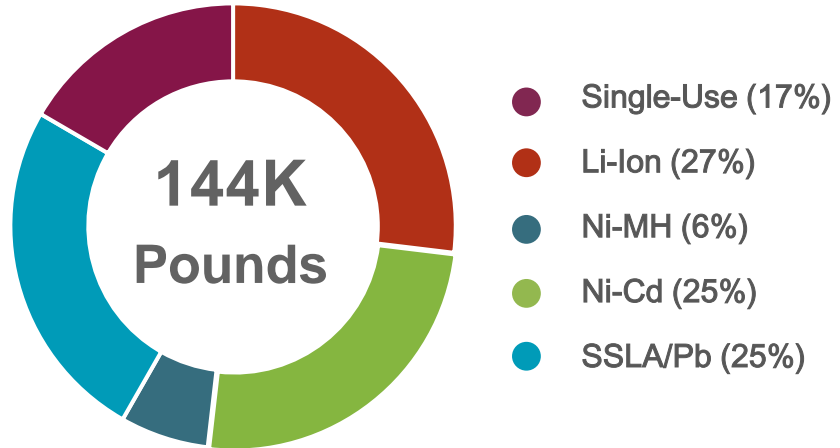


Current State

NY State Collection Activity 2021

1,066 Active Collection Sites

2021 Collections by Chemistry



Trends Shaping Battery Collection & Recycling



Collections



Regulatory



Safety

*Larger
Batteries*



Collections

Convenience & Accessibility

Deliver recycling directly to consumer

Emerging Processors

New opportunities (and challenges)

Usage, Power & Applications

Driving environmental and operational complexities

Safety

Everyone has a role to play throughout the battery journey



Safety

2017: A Pivotal Moment - When “IF” turned to “WHEN”



Safety

- Growing number of fires caused by lithium-ion batteries (LIBs) in the waste management process.
- Between 2013 and 2020, 64 waste facilities in 28 States experienced 245 fires caused by, or likely caused by, lithium metal or lithium-ion batteries. [Source: U.S. EPA's recently released [report](#)]
- Risks include injuring people, damaging property, increasing costs (insurance premiums, shipping surcharges, regulatory containers), drop in voluntary participation from collection sites - all puts battery schemes in jeopardy.



Safety

Mitigate battery-related events – the 3 P's



Prevent



Prepare



Protect



Regulatory Activity

- Myriad of existing and new state laws that lack harmonization
 - Producer responsibility
 - Product definition: Battery? Product? Both? What's in, What's out?
 - Collection Network (Rural vs. Urban)
 - Education & Outreach Requirements
- Legislation – NY State and California
- Program Implementation – Washington, D.C. (2023)



Bigger Batteries + Bigger Challenges AND Opportunities

- Climate action and other market forces are accelerating the adoption of larger batteries.
- E-Bikes: Call2Recycle collaborated with PeopleForBikes to help resolve the logistical challenges and regulatory intricacies in safely and compliantly delivering batteries for recycling.
- Electric Vehicles (EVs): Pilots underway with OEMs to design programs to safely and compliantly get batteries to processors

Call2Recycle's goal with the massive growth in e-transport batteries is to make the safe disposal and responsible recycling as seamless as we have for consumer batteries for the past 27 years.



The Path Forward



- Embedded Devices
- Right to Repair
- Inevitability of Mandatory EPR
- Larger Batteries: EVs
- More collections = More risk.





Leading the charge for recycling.™

thank you!

Todd Ellis

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