

# Battery Extended Producer Responsibility



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*Connecticut Coalition for Sustainable Materials Management (CCSMM) Meeting*  
December 13, 2023

# PRODUCT STEWARDSHIP INSTITUTE

Building capacity for product stewardship and EPR in the U.S. for **22 years**

## Members

47 **state** gov't agencies  
hundreds of **local** gov'ts



## Partners

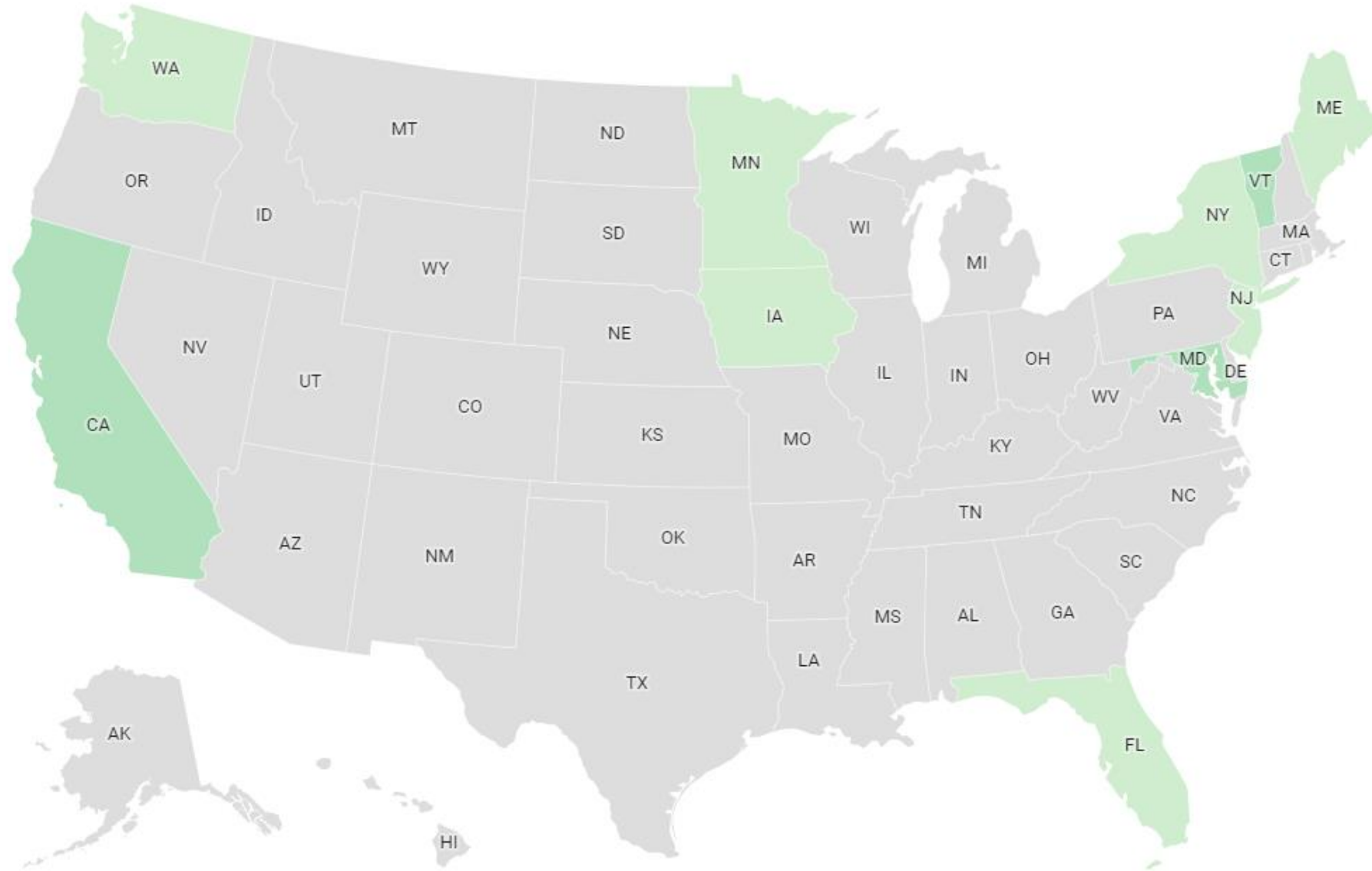
> 100 producers, recyclers, waste mgt  
NGOs, academics, international gov'ts





# US BATTERY EPR LAWS

10 states + DC



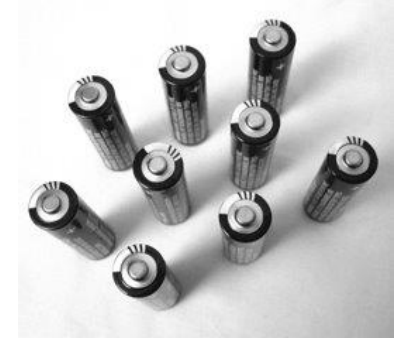
Source: Product Stewardship Institute, Inc. 2023

# Why Battery EPR Legislation?

- **Growing use** in an expanding range of products
- **Fire hazards and damage**
- **Many contained in products** that are not recycled and end up in **solid waste stream**
- **Critical minerals lost**
- **In the US, most existing EPR laws are limited:**
  - narrow scope
    - **only specific type/chemistry** (e.g., mercuric oxide, Ni-Cd, or rechargeables);
    - **only specific size** (e.g.,  $\leq 4.4$  lbs. for primary,  $< 11$  lbs. rechargeable,  $< 25$  lbs. rechargeable,  $\leq 300$  Watt-hours); or
    - **only from institutions/business** (not households)
  - lack current best practices as most laws passed before 2000
- EPR provides **economic opportunities** –
  - creates clean jobs + provides sustainable funding for recycling



# Vermont Batteries Content: What's Covered?



## Single-use (primary) batteries weighing 4.4 lbs. or less

### Excluded:

- **Not easily removable** or not intended to be removed from a product
- Industrial, **business-to-business**, warranty/maintenance services, or nonpersonal use
- **Sold in a computer**, computer monitor, computer peripheral, printer, television, or device containing a cathode ray tube
- Sold/used in a **medical device** as defined in the 21 U.S.C. § 321(h)

# Vermont Batteries Content: Who's Covered?

Who are the stakeholders that can use the program free of charge?

- Households
- Businesses



# Vermont Batteries Content: Collection Convenience

- Minimum **2 collection facilities in each county** that provide for collection throughout the year
- Accept **up to 100 batteries/visit** although a collection facility may agree to accept more than 100 batteries/visit.
- Allows **all retailers, all municipalities, and all certified solid waste management facilities to opt** to be a collection facility

## Where does collection take place?

- Local government facilities (HHW, libraries, town clerk office)
- Collection events
- Retailers
- Transfer stations



# Vermont Batteries Content: Funding

## Inputs

- Cost internalization

## Outputs (costs covered by program)

- Transportation and end-of-life management costs
- Education and outreach costs
- Agency funding to oversee and enforce





# Vermont Batteries Content: Performance Goals

Stewardship plan must include a **collection rate performance goal** (subject to approval by VT DEC)



# Vermont Batteries Content: Education and Outreach

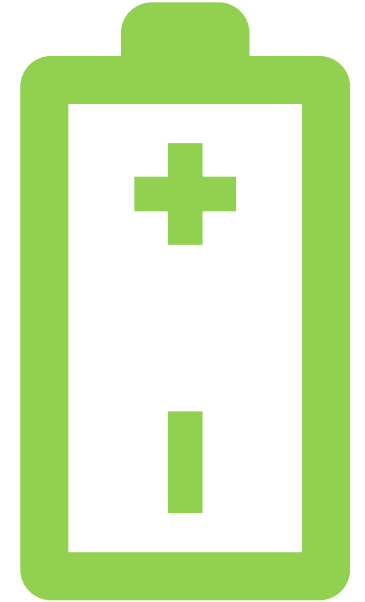


- Stewardship **plan must include an education/outreach** program that:
  - Describes the procedures used to **notify businesses, municipalities, solid waste management facilities, retailers, wholesalers, and haulers** about the program
  - Notifies **the public**, at a minimum,
    - That there is a **free collection program**
    - About the location of **collection points** and how to access
- **Producers/stewardship organization** must provide retailers with educational materials describing collection opportunities
- **Retailers** must make educational materials available to consumers

# Vermont Batteries Drivers

## What was the motivation to pursue EPR for single-use batteries?

- To improve and increase **diversion from landfills**
- Contain **valuable materials** that can be recycled (e.g., zinc, manganese).
- Vermonters buy over **10 million** batteries/year and the law would provide **convenient options** for recycling
- EPR program for single-use batteries could also **increase collection rates for rechargeable batteries**, which contain **toxic** metals



# Vermont Batteries Process



- **Who drafted the bill?**
  - VT PSC – made up of local govts, VT DEC, and a major hauler
- **How long did it take to get the bill passed?**
  - First introduced in 2014 and passed the same year
- **What was the strategy for gaining support for the bill?**
  - Legislator education
  - Communicating with legislators throughout the session
  - Testimony from local governments
- **Support included** local govts, Portable Rechargeable Battery Association (PRBA)
- **Opposition included** the Toy Industry Association

# What Has Batteries EPR Accomplished in VT?



- **Highest per capita state collection rates in the US**
- **1<sup>st</sup> year:** increased single-use + rechargeables collection by **>180%**
- **~96% population within 10 miles of a collection site**

# Washington State Batteries EPR Law Overview

- **Broad Product Scope**
  - primary, rechargeable up to 25 lbs and 2000 Watt-hours
  - damaged and defective batteries
- **Robust Performance Goals**
  - Recycling efficiency rate minimums
  - Collection goals required
  - Public awareness goals, including subgoals for vulnerable populations
- **Minimum Convenience Standards, including for equity/overburdened communities**
- **Strong Funding Measures**
  - Cost internalization specifically required
  - Eco-modulation fee language
- **Local government costs of collection covered**
- **Plan renewal at least every 5 years**
- **Agency funding**
- **Study of batteries not covered**, including larger batteries (e.g., EV and energy storage) and embedded batteries



# What's Ahead for Batteries EPR?



- **US:**
  - DC just launched November 1, 2023
  - Washington to be implemented 2027; medium format batteries by 2029
  - California to be implemented by 2028
  - Interest in several states in introducing battery EPR legislation in 2024 – new/amendments
  - Federal Bipartisan Infrastructure Law (2021) has provisions to establish a task force to develop a federal framework for battery EPR
- **European Union:** Implementation of new Battery Regulation
  - Addresses virtually all batteries
  - Includes ambitious recycling goals, removability requirements, and more
- **Canada** - British Columbia: Expanding to include EVs, energy storage, vapes, and others

# How is PSI Helping Advance Battery EPR?

- Research/Briefing Documents
- Model Legislative Language
- Bill development
- Multi-Stakeholder Facilitated Dialogues
- Strategic Consulting Advice
- Battery Webinars



  
**CONFIDENTIAL DRAFT**  
**Elements of Batteries**  
**EPR Legislation**  
 Revised August 8, 2022

This document provides a menu of legislative "elements" and options for state and local officials to use to develop extended producer responsibility (EPR) bills for Batteries. The document provides guidance on elements that are necessary components of effective state EPR legislation in the United States. The document is being developed by the Product Stewardship Institute (PSI) with input from PSI state and local government members. The contents are based on best practices. The document will be updated periodically as appropriate. If you are developing an EPR bill for batteries, please contact PSI's Sana Bayrakal ([sana@productstewardship.us](mailto:sana@productstewardship.us)) for additional resources.

ELEMENT	BASE MODEL	RECOMMENDED BILL LANGUAGE	OPTIONS AND ADDITIONAL CONSIDERATIONS
<b>1. COVERED MATERIALS/ PRODUCTS</b>  Materials/products that are subject to the EPR program	"Battery" means a device that consists of one or more electrically connected electrochemical cells and is designed to store and deliver electric energy, is a primary battery or a rechargeable battery or battery pack.	<p>(1) "Battery" means a device that consists of one or more electrically connected electrochemical cells and is designed to store and deliver electric energy, and includes damaged, defective, or recalled batteries.</p> <p>(2)(a) "Battery-containing product" means a product that contains or is packaged with a battery and includes, but is not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Hybrid and electric vehicles;</li> <li>• Electric bikes, motorized scooters, skateboards, and hoverboards;</li> <li>• Energy storage for solar panels;</li> <li>• Outdoor power equipment;</li> <li>• Small appliances and power tools;</li> <li>• Medical devices;</li> <li>• Vaping and e-cigarette products;</li> <li>• Cell phones;</li> <li>• Battery-embedded products; and</li> <li>• Products containing lead-acid batteries.</li> </ul> <p>(b) "Battery-containing product" does not include a product that has been exempted under (2)(c).</p> <p>(c) Notwithstanding (2)(a) and (2)(b), the Department may add or remove products from (2)(a) through rulemaking and shall provide public notice and solicit public comment on its intentions to do so.</p> <p>(3) "Battery-embedded product" means a product containing a battery or battery pack that is not designed to be removed from the product by the consumer.</p> <p>(4) "Damaged, defective, or recalled battery" means a battery that has been damaged or identified by the manufacturer as being defective for safety reasons, or that have the potential of producing a dangerous evolution of heat, fire, or short circuit (e.g., those being returned to the manufacturer for safety reasons).</p>	<p>Consider including <b>exemptions or phasing in products/product categories</b> over time.</p> <p>Exclude lead-acid batteries but require producers to send annual verification that an existing take back program is in place.</p> <p>For states with <b>electronics EPR laws</b>, add (C) <u>Battery Law</u> language "covered electronic equipment" exclusion under (2)(b) in "Recommended Bill Language" column: (1) Covered electronic equipment, as that term is defined in [state law]</p> <p><b>Definitions</b></p> <ul style="list-style-type: none"> <li>• Defers specific definitions of primary battery and rechargeable battery (and possibly other definitions such as removable battery, battery-embedded product, etc.) to state agency to develop under rule-making. Options might include:             <ul style="list-style-type: none"> <li>○ (1) "Primary battery" means a non-rechargeable battery including, but not limited to, alkaline, carbon-zinc and lithium metal batteries.</li> <li>○ (2) "Rechargeable battery" means a battery that contains one or more voltaic or galvanic cells electrically connected to produce electric energy, that is designed to be recharged.</li> </ul> </li> </ul>

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**THANK  
YOU!**

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