

**Extended Producer Responsibility Commission** 

## **DRAFT**

Background document for policy recommendation on

# BATTERIES

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#### **Executive Summary**

The Extended Producer Responsibility (EPR) Commission was charged with identifying policy recommendations for batteries. Current EPR programs in other states focus on small to medium size batteries typically generated in a household. This includes a variety of everyday use batteries including lithium batteries. Lithium batteries are generally safe and unlikely to fail, but only so long as there are no defects and the batteries are not damaged. When lithium batteries fail to operate safely or are damaged, they may present a fire and/or explosion hazard. Damage from improper use, storage, or charging may also cause lithium batteries to fail. Oftentimes such common waste management processes, which include machines that crush waste, can damage lithium-ion batteries that ignite fires in waste vehicles and at waste facilities.

One key danger for lithium-ion batteries is thermal runaway. According to the *Journal of Power Sources*, thermal runaway is "a positive temperature feedback effect of a system with higher heat generation than effective cooling through the battery walls." This uncontrolled heating can spread to other cells, leading to larger fires or explosions. Lithium-ion battery fires also carry additional risks, including the release of flammable and toxic gases, the ejection of batteries during failure leading to secondary ignitions, and reignition even after a fire is extinguished.

The U.S. Environmental Protection Agency (EPA) compiled a report in 2021 on fires caused by lithium-ion batteries in the waste management system using publicly available news reports as the primary source of information. Their analysis found reports of 245 fires caused by lithium-ion batteries between 2013 and 2020, and noted that based on anecdotal evidence, lithium-ion battery fires in the waste management process are severely underreported, and the actual number of such fires is likely much higher. <sup>4</sup> A recent report from the National Waste & Recycling Association (NWRA) and Resource Recycling Systems (RRS) conducted in 2023 estimates that more than 5,000 fires occur annually at recycling facilities alone, which indicates an average of 18 fires per Material Recycling Facilities per year. <sup>5</sup>

In the first six months of voluntary data collection on lithium-ion battery fires in Massachusetts, fire departments reported 50 lithium-ion battery-related fires across the state. <sup>6</sup> State Fire Marshal Davine subsequently reported at least 135 lithium-ion fires in Massachusetts in 2024 and

<sup>&</sup>lt;sup>1</sup> U.S. Department of Labor, Occupational Safety and Health Administration, "Preventing Fire and/or Explosion Injury from Small and Wearable Lithium Battery Powered Devices," Safety and Health Information Bulletin, January 18, 2019, 2, <a href="https://www.osha.gov/sites/default/files/publications/shib011819.pdf">https://www.osha.gov/sites/default/files/publications/shib011819.pdf</a>.

<sup>&</sup>lt;sup>2</sup> Balakrishnan, P.G., Ramesh, R., Prem Kumar, T., "Safety mechanisms in lithium-ion batteries," *Journal of Power Sources*, Vol. 155, No. 2, (April 21, 2006): 401-414, https://doi.org/10.1016/j.jpowsour.2005.12.002.

<sup>&</sup>lt;sup>3</sup> United States Fire Administration, "Lithium-Ion Batteries: Risks and Response Strategies," last reviewed November 7, 2024, <a href="https://www.usfa.fema.gov/a-z/lithium-ion-batteries/risks-and-response-strategies/">https://www.usfa.fema.gov/a-z/lithium-ion-batteries/risks-and-response-strategies/</a>.

<sup>&</sup>lt;sup>4</sup> U.S. Environmental Protection Agency, *An Analysis of Lithium-ion Battery Fires in Waste Management and Recycling*, EPA 530-R-21-002, July 2021, <a href="https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01.508.pdf">https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01.508.pdf</a>

Michael R. Timpane, "Metrics on the Lithium-based Battery Threat to U.S. Single Stream Material Recovery Facilities ('MRFs') Summary Opinion," Resource Recycling Systems (RRS), September 28, 2023, 11, <a href="https://resource-recycling.com/recycling/wp-content/uploads/sites/3/2024/01/RRS-Lithium-battery-opinion-final-2.pdf">https://resource-recycling.com/recycling/wp-content/uploads/sites/3/2024/01/RRS-Lithium-battery-opinion-final-2.pdf</a>.

<sup>&</sup>lt;sup>6</sup> Commonwealth of Massachusetts, "After Six Months, New Tracking Tool Identifies 50 Lithium-Ion Battery Fires," April 17, 2024, accessed August 6,2025, from <a href="https://www.mass.gov/news/after-six-months-new-tracking-tool-identifies-50-lithium-ion-battery-fires">https://www.mass.gov/news/after-six-months-new-tracking-tool-identifies-50-lithium-ion-battery-fires</a>.

approximately three dozen injuries to firefighters and civilians since late 2023.<sup>7</sup> State Fire Marshall Davine reported to the Massachusetts Extended Producer Responsibility Commission that these numbers don't include a rising number of fires in trash disposal vehicles and at transfer stations that some experts believe are driven by large numbers of improperly discarded batteries.<sup>8</sup>

In Massachusetts, battery recycling is paid for by local governments, producers, and consumers. Municipalities collect household and lithium-ion batteries at household hazardous waste (HHW) facilities, drop-off centers and special events, supported by taxpayer dollars, user fees, or grants from the Massachusetts Department of Environmental Protection (MassDEP). According to MassDEP, 269 municipalities report collecting lithium-ion batteries (268 report collecting other household batteries) and there are 337 battery collection locations in Massachusetts listed on Beyond the Bin. 10

Based on data from MassDEP's 2024 recycling and solid waste survey, which focuses on municipally provided services, the following access rates for battery recycling were reported:

- Approximately 56% of the population has access to year-round household battery recycling services, with 53% having access to year-round lithium battery recycling services.
- An additional 27% to 30% of residents have limited access to household and lithium-ion battery recycling, respectively.
- This leaves up to 17% of Massachusetts residents without access to battery recycling services through their municipality.<sup>11</sup>

Consumers in Massachusetts also have access to collection services from organizations such as Call2Recycle, which offers collection sites and mail-in options for rechargeable and single-use batteries using their recycling boxes. 12 This includes collection locations at retailers as well as municipal sites.

Vermont passed the country's first battery EPR law for single-use batteries in 2014. Since 2020, many EPR laws have been passed and are being implemented, encompassing a growing scope of materials. They all cover primary (single-use) batteries of less than 4.4 pounds, portable rechargeable batteries that weigh less than 11 pounds, and medium-format batteries. Some laws also include battery-containing products (such as electric toothbrushes). Three states have required a study on embedded batteries, i.e., not intended for removal by the consumer. The inclusion of damaged, defective, and recalled batteries (DDR) is still under consideration.

Massachusetts Department of Environmental Protection, Extended Producer Responsibility Commission, draft meeting minutes from July 16, 2025, accessed August 6, 2025, from <a href="https://www.mass.gov/info-details/extended-producer-responsibility-commission">https://www.mass.gov/info-details/extended-producer-responsibility-commission</a>.

<sup>&</sup>lt;sup>8</sup> EPR Commission minutes July 16, 2025.

<sup>&</sup>lt;sup>9</sup> The Massachusetts Department of Environmental Protection CY2024 Recycling and Solid Waste Survey results use the categories of household batteries and lithium batteries. Household batteries is understood to mean all batteries used at home. Lithium batteries is understood to mean any battery chemistry that uses lithium. From

https://www.mass.gov/lists/recyclingsolid-waste-data-for-massachusetts-cities-towns, accessed July 8, 2025.

<sup>&</sup>lt;sup>10</sup> Data from RecycleSmart, Beyond the Bin, accessed August 6, 2025 from <a href="https://recyclesmartma.org/beyond-the-bin-search/">https://recyclesmartma.org/beyond-the-bin-search/</a>.

<sup>&</sup>lt;sup>11</sup> Data from MassDEP 2024 Recycling Survey reported by municipalities. From https://www.mass.gov/lists/recyclingsolid-waste-data-for-massachusetts-cities-towns, accessed July 8, 2025.

<sup>&</sup>lt;sup>12</sup> Call2Recycle, "Store," accessed August 6, 2025, <a href="https://www.call2recycle.org/store/?srsltid=AfmBOorLt-FqXT5zKMBeNdclk0zbLJNUzCJ7RE1f6nOMQKq6cEYnkdli">https://www.call2recycle.org/store/?srsltid=AfmBOorLt-FqXT5zKMBeNdclk0zbLJNUzCJ7RE1f6nOMQKq6cEYnkdli</a>.

<sup>13</sup> See Appendix B for terms and definitions.

An EPR program would bring financial benefits to Massachusetts municipalities and residents by shifting the responsibility for funding battery collection, transportation, and recycling from the municipalities to battery producers. The producer responsibility organization Call2Recycle spent \$392,925 to collect 154,956 pounds of batteries in Vermont in 2024. <sup>14</sup> This extrapolates to roughly \$2.52 per battery they collected and \$1.40 per household in Vermont. <sup>15</sup> A similar model would translate to roughly \$3.9 million in spending for battery collection, transportation, and recycling from a producer responsibility organization in Massachusetts, resulting in avoided costs to municipalities and more consistent and convenient collection methodologies. 16

Some key considerations for EPR in Massachusetts are the inclusion of embedded batteries. damaged, defective, recalled (DDR) batteries, and battery collection performed outside of the EPR program.



 $<sup>^{\</sup>rm 14}$  Call2Recycle, 2024 Vermont Annual Report, page 16, accessed August 15, 2025, from

https://dec.vermont.gov/sites/dec/files/documents/2024%20Vermont%20Annual%20Report.pdf.

15 According to the U.S. Census Bureau, Vermont had 279,612 households in 2023. Data from U.S. Census Bureau, 2023 American Community Survey 1-Year Estimates, Vermont, accessed August 15, 2025, from https://data.census.gov/profile/Vermont?q=040XX00US50.

<sup>&</sup>lt;sup>16</sup> Figure derived from multiplying \$1.40 by 2,800,984 households in Massachusetts. Data from U.S. Census Bureau, 2023 American Community Survey 1-Year Estimates, Massachusetts, accessed August 15, 2025, from  $\underline{https://data.census.gov/profile/Massachusetts?g=040XX00US25}.$ 

#### Extended Producer Responsibility Commission Recommendation

The Commission recommends that the Massachusetts Legislature enact legislation to establish an extended producer responsibility program for batteries. The Commission recommends the development and implementation of a program that aligns with the Rechargeable Battery Association model EPR legislation to the greatest extent possible.

The Commission acknowledges proposed battery EPR legislation under consideration before the Massachusetts legislature at the time of this recommendation—H.968 and S.556—but does not endorse any specific bill.

The Commission recommends consideration of the following:

- As movement on EPR for batteries in other states is rapidly evolving to address various issues such as management of damaged, defective, recalled (DDR) batteries, embedded batteries in products, and proper collection and management solutions, harmonization of state programs will serve states and industry.
- Impacts of any restriction on parties outside the EPR program from collecting batteries through existing infrastructures should be considered.

#### Background: The Problem

Rechargeable lithium-ion batteries were initially developed in the early 1970s following decades of exploration of lithium's electrochemical properties.<sup>17</sup>. But while lithium-ion batteries are generally safe and appropriate for consumer use, they can cause fires and explosions when they fail due to defects, damage, or incorrect use, storage, or charging <sup>18</sup> Oftentimes such common waste management processes, which include machines that crush waste, can damage lithium-ion batteries that ignite fires in waste vehicles and facilities.

One key danger for lithium-ion batteries is thermal runaway. According to the *Journal of Power Sources*, thermal runaway is "a positive temperature feedback effect of a system with higher heat generation than effective cooling through the battery walls." This uncontrolled heating can spread to other cells, leading to fires or explosions. Lithium-ion battery fires also carry additional risks, including the release of flammable and toxic gases, the ejection of batteries during failure leading to secondary ignitions, and reignition even after a fire is extinguished.<sup>20</sup>

While fires caused by lithium-ion batteries have been on the rise for more than a decade, only recently have fire safety entities begun to quantify the problem. The U.S. Environmental Protection Agency (EPA) compiled a report in 2021 on fires caused by lithium-ion batteries in the waste management system using publicly available news reports as the primary source of information. Their analysis found reports of 245 fires caused by lithium-ion batteries between 2013 and 2020, and the facilities most affected were materials recovery facilities (MRFs). The final report noted that based on anecdotal evidence, lithium-ion battery fires in the waste management process are severely underreported, and the actual number of such fires is likely much higher. A key result from this study was the large increase in lithium-ion battery fires during the eight-year timeframe studied (see Figure 1).<sup>21</sup>

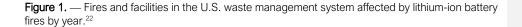
<sup>&</sup>lt;sup>17</sup> Reddy, Mogalahalli V., Mauger Alain, Julien, Christian M., Paolella, Andrea, and Zaghib, Karim, "Brief history of early lithium battery development," Materials 2020, 13(8), 1884; <a href="https://doi.org/10.3390/ma13081884">https://doi.org/10.3390/ma13081884</a>.

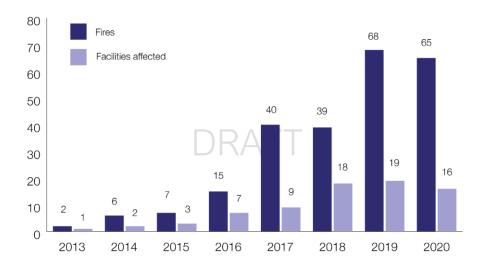
<sup>&</sup>lt;sup>18</sup> U.S. Department of Labor, Occupational Safety and Health Administration, "Preventing Fire and/or Explosion Injury from Small and Wearable Lithium Battery Powered Devices," Safety and Health Information Bulletin, January 18, 2019, 2, <a href="https://www.osha.gov/sites/default/files/publications/shib011819.pdf">https://www.osha.gov/sites/default/files/publications/shib011819.pdf</a>.

<sup>&</sup>lt;sup>19</sup> Balakrishnan, P.G., Ramesh, R., Prem Kumar, T., "Safety mechanisms in lithium-ion batteries," *Journal of Power Sources*, Vol. 155, No. 2, (April 21, 2006): 401-414, https://doi.org/10.1016/j.jpowsour.2005.12.002.

<sup>&</sup>lt;sup>20</sup> United States Fire Administration, "Lithium-Ion Batteries: Risks and Response Strategies," last reviewed November 7, 2024, <a href="https://www.usfa.fema.gov/a-z/lithium-ion-batteries/risks-and-response-strategies/">https://www.usfa.fema.gov/a-z/lithium-ion-batteries/risks-and-response-strategies/</a>.

<sup>&</sup>lt;sup>21</sup> U.S. Environmental Protection Agency, *An Analysis of Lithium-ion Battery Fires in Waste Management and Recycling*, EPA 530-R-21-002, July 2021, <a href="https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01">https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01</a> 508.pdf.





A recent report from the National Waste & Recycling Association (NWRA) and Resource Recycling Systems (RRS) conducted in 2023 estimates that more than 5,000 fires occur annually at recycling facilities alone, which indicates an average of 18 fires per MRF per year.<sup>23</sup> These data are also supported by a study conducted at the Shoreway Environmental Center MRF in San Carlos, California, in 2017, which tracked the lithium-ion batteries pulled out of its incoming recyclables.<sup>24</sup> In less than five weeks, they collected more than 1,000, meaning that more than five lithium-ion batteries enter the facility every hour.<sup>25</sup> These operational risks have also increased the cost of recycling facility insurance from under \$0.20 to as high as \$10 per \$100 of insured property value.<sup>26</sup>

<sup>&</sup>lt;sup>22</sup> U.S. Environmental Protection Agency, "The Importance of Sending Consumers' Used Lithium-ion Batteries to Electronic Recyclers or Hazardous Waste Collection Facilities," last updated March 5, 2025, <a href="https://www.epa.gov/recycle/importance-sending-consumers-used-lithium-ion-batteries-electronic-recyclers-or-bazardous">https://www.epa.gov/recycle/importance-sending-consumers-used-lithium-ion-batteries-electronic-recyclers-or-bazardous</a>

 <sup>&</sup>lt;sup>23</sup> Michael R. Timpane, "Metrics on the Lithium-based Battery Threat to U.S. Single Stream Material Recovery Facilities ('MRFs') Summary Opinion," Resource Recycling Systems (RRS), September 28, 2023, 11, <a href="https://resource-recycling.com/recycling/wp-content/uploads/sites/3/2024/01/RRS-Lithium-battery-opinion-final-2.pdf">https://resource-recycling.com/recycling/wp-content/uploads/sites/3/2024/01/RRS-Lithium-battery-opinion-final-2.pdf</a>.
 <sup>24</sup> U.S. Environmental Protection Agency, "Lithium ion batteries in the solid waste system," SBWMA MRF survey (March

<sup>&</sup>lt;sup>24</sup> U.S. Environmental Protection Agency, "Lithium ion batteries in the solid waste system," SBWMA MRF survey (March 17, 2018), accessed August 6, 2025, from <a href="https://www.epa.gov/sites/default/files/2018-03/documents/timpane\_epa\_li\_slides312\_ll\_1.pdf">https://www.epa.gov/sites/default/files/2018-03/documents/timpane\_epa\_li\_slides312\_ll\_1.pdf</a>.

<sup>&</sup>lt;sup>25</sup> RethinkWaste, "Lithium-based Battery Assessment," 2017, https://rethinkwaste.org/wp-content/uploads/legacy\_media/7-a-attachment-d-lithium-based-battery-assessment-2017.original.pdf.

National Waste & Recycling Association, "NWRA and RRS Release Report on Threat of Lithium Batteries to Waste and Recycling Infrastructure," January 10, 2024, <a href="https://wasterecycling.org/press\_releases/nwra-and-rrs-release-report-on-threat-of-lithium-batteries-to-waste-and-recycling-infrastructure/">https://wasterecycling.org/press\_releases/nwra-and-rrs-release-report-on-threat-of-lithium-batteries-to-waste-and-recycling-infrastructure/</a>.

#### Battery recycling

While nation-wide battery recycling rates are unclear, Call2Recycle®, a U.S.-based non-profit and the country's largest consumer battery stewardship and collection program, reported that they collected more than 8 million pounds of batteries for recycling in 2023, 5.4 million pounds of which were rechargeable batteries.27

Increasing recycling rates for lithium-ion batteries could significantly reduce reliance on raw natural resources, cutting the need for newly extracted ore by up to 50% and curbing the emissions tied to mining and material processing.<sup>28</sup> Raw materials account for half of the costs to produce lithium-ion batteries, so increasing recycling rates could also drive down battery costs.<sup>29</sup> Municipal battery recycling programs also put a financial burden on municipal governments and taxpayers, as the responsibility to dispose/recycle of batteries safely falls on them.

#### Barriers to battery recycling programs

According to PSI, there are multiple barriers to recycling programs for consumer batteries:

- Awareness. Because different batteries are accepted at different locations, many consumers may be unaware of which batteries require recycling and where they can recycle them. Without clear information, they may attempt to recycle all battery types together, regardless of differences in materials or hazards.
- Accessibility: Even when the intent to recycle exists, the lack of accessible drop-off locations or convenient collection options can prevent follow-through by consumers.
- Embedded batteries: A growing number of batteries are embedded within electronic products, making it difficult for consumers to remove them. As a result, entire devices must be collected so the batteries can be safely dismantled and recycled.
- Transparency. According to the Product Stewardship Institute (PSI), greater certainty is needed around battery processing practices. Some advocates call for the development of environmentally sound recycling standards, noting that even with high recovery rates, environmental impacts may occur during manufacturing, use, or end-of-life stages.

<sup>&</sup>lt;sup>27</sup> Call2Recycle, "Call2Recycle Releases 2023 U.S. National Battery Collection & Recycling Data," March 4, 2024, https://www.call2recycle.org/call2recycle-releases-2023-u-s-national-battery-collection-recycling-data/.

<sup>&</sup>lt;sup>28</sup> U.S. Environmental Protection Agency, An analysis of lithium-ion battery fires in waste management and recycling, July 2021, p. 7, accessed August 12, 2025, from https://www.epa.gov/system/files/documents/2021-08/lithium-ion-batteryreport-update-7.01\_508.pdf.

#### Data collection on lithium-ion battery fires in Massachusetts

In Massachusetts, State Fire Marshal Jon Davine began collecting data on lithium-ion batteries and the potential for fire hazards in fall 2023. In the first six months of voluntary data collection, fire departments reported 50 lithium-ion battery-related fires across the state. In State Fire Marshal Davine subsequently reported at least 135 lithium-ion fires in Massachusetts in 2024 and approximately three dozen injuries to firefighters and civilians since late 2023. State Fire Marshall Davine reported to the Massachusetts Extended Producer Responsibility Commission that these numbers don't include a rising number of fires in trash disposal vehicles and solid waste transfer stations that some experts believe are driven by large numbers of improperly discarded batteries.

#### Battery disposal and recycling in Massachusetts

Massachusetts residents purchase about 63 million batteries each year, many of which replace old, spent batteries that are then discarded.<sup>34</sup> Up to 6,000 tons of these batteries are discarded in the trash each year, according to Massachusetts waste characterization studies.<sup>35</sup> According to PSI, the remainder may be stored in the home or recycled, as there is no comprehensive data available on the total volume or weight of batteries recycled within the state.

Municipalities collect household and lithium batteries at household hazardous waste (HHW) facilities, drop-off centers and special events, supported by taxpayer dollars, resident fees or grants from the Massachusetts Department of Environmental Protection (MassDEP). According to MassDEP, 269 municipalities report collecting lithium-ion batteries (268 report collecting other household batteries) and there are 337 battery collection locations in Massachusetts listed on Beyond the Bin. Some retailers take back batteries from customers, but these outlets are not highly publicized, acceptance criteria change frequently, and those criteria are inconsistent.

<sup>&</sup>lt;sup>30</sup> Commonwealth of Massachusetts, Executive Office of Public Safety and Security, Department of Fire Services, "DFS launches tool to track lithium-ion battery fires," October 17, 2023, accessed August 6, 2025, from <a href="https://www.mass.gov/news/dfs-launches-tool-to-track-lithium-ion-battery-fires">https://www.mass.gov/news/dfs-launches-tool-to-track-lithium-ion-battery-fires</a>.

<sup>&</sup>lt;sup>31</sup> Commonwealth of Massachusetts, "After Six Months, New Tracking Tool Identifies 50 Lithium-Ion Battery Fires," April 17, 2024, accessed August 6,2025, from <a href="https://www.mass.gov/news/after-six-months-new-tracking-tool-identifies-50-lithium-ion-battery-fires">https://www.mass.gov/news/after-six-months-new-tracking-tool-identifies-50-lithium-ion-battery-fires</a>.

<sup>&</sup>lt;sup>32</sup> Massachusetts Department of Environmental Protection, Extended Producer Responsibility Commission, meeting minutes from July 16, 2025, accessed August 6, 2025, from <a href="https://www.mass.gov/info-details/extended-producer-responsibility-commission">https://www.mass.gov/info-details/extended-producer-responsibility-commission</a>.

<sup>&</sup>lt;sup>33</sup> EPR Commission minutes July 16, 2025.

<sup>&</sup>lt;sup>34</sup> The U.S. Environmental Protection Agency estimates that U.S. residents purchase 3 billion batteries per year scaled to the Massachusetts population. From

https://web.archive.org/web/20110202212818/http://www.epa.gov/waste/conserve/materials/battery.htm, accessed July 8, 2025

<sup>&</sup>lt;sup>35</sup> Batteries comprised about 0.1% of 6 million tons of Massachusetts solid waste disposed, or approximately 6,000 tons. Massachusetts Department of Environmental Protection, "Waste characterization and capacity studies," 2022, accessed July 8, 2025 at https://www.mass.gov/guides/solid-waste-master-plan#-waste-characterization-&-capacity-studies-

<sup>&</sup>lt;sup>36</sup> The Massachusetts Department of Environmental Protection CY2024 Recycling and Solid Waste Survey results use the categories of household batteries and lithium batteries. Household batteries is understood to mean all batteries used at home. Lithium batteries is understood to mean any battery chemistry that uses lithium. From <a href="https://www.mass.gov/lists/recyclingsolid-waste-data-for-massachusetts-cities-towns">https://www.mass.gov/lists/recyclingsolid-waste-data-for-massachusetts-cities-towns</a>, accessed July 8, 2025.

<sup>&</sup>lt;sup>37</sup> Data from RecycleSmart, Beyond the Bin, accessed August 6, 2025, from <a href="https://recyclesmartma.org/beyond-the-bin-search/">https://recyclesmartma.org/beyond-the-bin-search/</a>.

One challenge Massachusetts faces are high lithium-ion battery recovery costs that vary by vendor (\$0.99-\$5.50/lb), and costs are higher for damaged, defective, and recalled (DDR) battery recycling since they pose an increased management burden, cost, and may require additional supplies. Additional data about spending from municipalities and other entities on battery recycling in Massachusetts is currently unavailable, although PSI is currently conducting a survey of municipalities to gather data about municipal costs of battery management in the Commonwealth.

Based on data from MassDEP's 2024 recycling and solid waste survey, which focuses on municipally provided services, the following access rates for battery recycling are reported:

- Approximately 56% of the population has access to year-round household battery recycling services, with 53% having access to year-round lithium battery recycling services.
- An additional 27% to 30% of residents have limited access to household and lithium-ion battery recycling, respectively.
- This leaves up to 17% of Massachusetts residents without access to battery recycling services through their municipality.38

It is important to note that since this survey is limited to municipally provided services, the actual statewide access rates are likely higher. Services from other entities, such as collection points provided by Call2Recycle and other private entities, are not included in these figures. Tables 1 and 2 below provide a summary of the access rates reported by municipalities in the survey.

**Table 1.** — Access to household battery collection in Massachusetts in 2024.<sup>39</sup>

Collection opportunity	Percent of communities	Percent of population
Year round	63%	56%
Once a week	1%	1%
Once a month	2%	2%
Between 6 and 11 months per year	3%	6%
Less than 6 months per year	7%	16%
None	5%	6%
No data	18%	11%

<sup>&</sup>lt;sup>38</sup> Data from MassDEP 2024 Recycling Survey reported by municipalities, accessed August 15, 2025, from https://www.mass.gov/lists/recyclingsolid-waste-data-for-massachusetts-cities-towns/. 39 lbid.

Table 2. — Access to lithium battery collection in Massachusetts in 2024. 40

Collection opportunity	Percent of communities	Percent of population
Year round	60%	53%
Once a week	2%	1%
Once a month	2%	4%
Between 6 and 11 months per year	3%	5%
Less than 6 months per year	10%	20%
None	5%	6%
No data	18%	11%

Residents in Massachusetts also have access to recovery services from organizations such as Call2Recycle. Call2Recycle is a U.S.-based, nonprofit producer responsibility organization (PRO) that works to advance battery collection and recycling with the support of battery and product manufacturers, to residents through collection sites. They also offer options to mail in rechargeable and single-use batteries using their recycling boxes, which are sometimes referred to as "premium services." 41

#### **Proposed Solution**

According to PSI, the first extended producer responsibility laws in the U.S. were established for batteries in 1991, when Vermont began a program for certain government-purchased rechargeable batteries. In 1994, Call2Recycle was formed to manage existing and future battery EPR laws. Two years later, a federal law focused on single-use mercury batteries, which paved the way for Call2Recycle to roll out a voluntary national program in states without EPR laws, which still exists today.

Vermont passed the country's first battery EPR law for single-use batteries in 2014. Since 2020, many EPR laws have been passed and are being implemented, encompassing a growing scope of batteries. These laws all cover primary (single-use) batteries of less than 4.4 pounds, portable rechargeable batteries that are less than 11 pounds, and medium-format batteries. Some laws also include battery-containing products (such as electric toothbrushes). Three states have required a study on embedded batteries, i.e., not intended for removal by the consumer. The inclusion of damaged, defective, and recalled batteries (DDR) is still under consideration. Table 3 and Figure 2 summarize current battery EPR laws in the U.S.

 $<sup>^{\</sup>rm 40}$  MassDEP 2024 Recycling Survey.

<sup>&</sup>lt;sup>41</sup> Call2Recycle, "Store," accessed August 6, 2025, https://www.call2recycle.org/store/?srsltid=AfmBOorLt-FqXT5zKMBeNdclk0zbLJNUzCJ7RE1f6nOMQKq6cEYnkdli.

**Table 3.** — Battery EPR laws in the United States (as of July 8, 2025).<sup>42</sup>

State	Enacted	Amended	Batteries covered
California	2006		Rechargeable
California	2022		Primary and rechargeable
Colorado	2025		Primary, rechargeable, medium-format
Connecticut	2025		Primary, rechargeable, medium-format, battery-containing devices
District of Columbia	2020	2023	Primary and rechargeable
Florida	1993		Rechargeable
Illinois	2024		Primary, rechargeable, medium-format
lowa	1996		Rechargeable Ni-Cd and SSLA, mercuric oxide
Maine	1995	DRA	Mercuric oxide batteries
Maryland	1993		Rechargeable
Maryland	1994		Mercuric oxide batteries
Minnesota	1991		Rechargeable batteries
Nebraska	2005		Primary, rechargeable, medium-format, battery-containing devices
New Jersey	1991		Rechargeable Ni-Cd and SSLA, mercuric oxide batteries
New Jersey	2023		Electric and hybrid vehicle batteries
New York	2010	2025	Rechargeable, medium-format
Vermont	1991		Rechargeable Ni-Cd purchased by a government entity, mercuric oxide batteries
Vermont	2010	2024	Primary, rechargeable, battery-containing devices
Washington	2023		Primary, rechargeable, medium-format

 $<sup>^{\</sup>rm 42}$  Data from the Product Stewardship Institute.

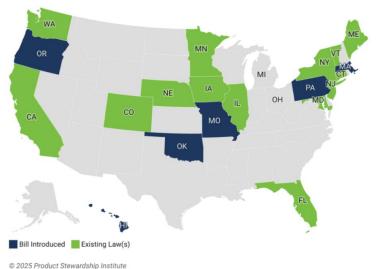


Figure 2. — Battery EPR laws and bills in the United States in 2025 (as of July 9, 2025).<sup>43</sup>

This map shows EPR laws and bills that create a new program. Bills amending existing EPR programs are not represented.

The Rechargeable Battery Association (PRBA), the industry association that represents large battery manufacturers in the U.S., has a model EPR bill (Appendix C) which contains the most common household batteries with a few exceptions, including:<sup>44</sup>

- · Recalled batteries (see more below)
- Non-consumer medical devices
- Free liquid electrolyte batteries
- Lead acid batteries (> 11 pounds)
- Embedded batteries (for now; see more below)
- Motor-vehicle batteries
- Large batteries (> 25 pounds)

#### How battery EPR programs work

According to PSI, in states with extended producer responsibility (EPR) laws, Call2Recycle, a PRBA-led producer responsibility organization, develops a detailed program plan and submits it to the state's environmental oversight agency (i.e., MassDEP) for approval. Once approved, the organization manages the battery recycling program to meet all legal requirements.

<sup>&</sup>lt;sup>43</sup> U.S. Environmental Protection Agency, "The Importance of Sending Consumers' Used Lithium-ion Batteries to Electronic Recyclers or Hazardous Waste Collection Facilities."

<sup>&</sup>lt;sup>44</sup> See Appendix C: Model battery EPR bill.

#### Program operations typically include:

- Establishing and contracting with a network of convenient collection sites, such as retailers, municipalities and household hazardous waste (HHW) facilities and events, in urban, suburban, and rural areas
- Providing these collection sites with the necessary supplies, training, and educational materials
- Contracting with transporters and processors to handle the collected batteries
- Conducting public education and outreach, including statewide education campaigns
- Funding the program by assessing fees on producers based on their market share
- Collecting data on various metrics, including collection and processing volumes and public awareness
- Submitting an annual report to the oversight agency detailing the program's activities and results
- Ensuring transparency and accountability through regular audits and evaluations

These programs have the following impacts on major stakeholder groups:

- Producers. Usually defined as the battery brand, producers must register with the state and
  participate in a program such as Call2Recycle, report their sales, and pay fees to fund the
  program in order to sell in a state with a battery EPR law.
- Consumers. Consumers can recycle batteries for free at approved collection sites, such as HHW events/facilities, municipal collection points, and certain retailers, or they can pay for a premium collection service such as curbside pickup or mail-back boxes.
- Transporters and processors. Transporters collect batteries from various locations, delivering them to processors who are required to recycle them in an environmentally responsible manner.
- Retailers. In states with EPR laws, retailers are prohibited from selling batteries from noncompliant producers and often voluntarily serve as collection sites, but in New York and
  California, there are mandatory requirements for retailers of a certain size to serve as
  collection points and provide producer-funded educational materials.
- Municipalities. Local governments typically act as collection sites for batteries at HHW and other locations, and they may also provide outreach, education, and premium services for a fee

#### Discussion: EPR in Massachusetts

EPR laws mandate a specific number of year-round collection sites for residents. The criteria for these sites vary by state, with some requiring a minimum number per county (Vermont) or per capita (District of Columbia), while others mandate that retailers serve as collection sites (New York).

The battery EPR law in Washington State requires at least one permanent, year-round collection site within a 15-mile radius of 95% of residents and one site per 30,000 residents in urban areas. If

Massachusetts were to adopt a similar law to Washington's, access to lithium-ion battery recycling could increase from the current 53% (municipal access) to 95%. 45

An EPR program would bring financial benefits to Massachusetts municipalities and residents by shifting the responsibility for funding battery collection, transportation, and recycling from the municipalities to battery producers. The producer responsibility organization Call2Recycle spent \$392,925 to collect 154,956 pounds of batteries in Vermont in 2024. An This extrapolates to roughly \$2.52 per battery they collected and \$1.40 per household in Vermont. An asimilar model would translate to roughly \$3.9 million in spending for battery collection, transportation, and recycling from a producer responsibility organization in Massachusetts, resulting in avoided costs to municipalities, more consistent and convenient collection methodologies, increased recovery of batteries and reduced expenses and the public health threat associated with fires.

For example, solid waste and recycling facilities experience thousands of fires each year, most of which are believed to be caused by lithium-ion batteries. The damage caused by reported fires has ranged between \$2,600 to more than \$50 million. <sup>49</sup> In addition, insurance for material recovery facilities has increased more than tenfold. <sup>50</sup> Reducing batteries entering the waste or recycling stream will reduce the incidence of fires and the associated costs.

#### Key considerations

The following topics were raised as key issues during the July 16 EPR commission meeting by various stakeholders.

Embedded batteries, found in products such as laptops and smart phones, present a challenge for assigning responsibility when they are collected. While many are already part of an electronics EPR program, there is increasing interest in ensuring both the batteries and their products are managed responsibly. Three state EPR programs—Washington, Vermont, and Illinois—require that studies be performed to determine how to safely manage and equitably finance the recycling of these items. Comments on this consideration voiced during the July 16, 2025, Massachusetts EPR Commission meeting included the following:

 Commissioner Waneta Trabert, Vice President of MassRecycle and Director of Sustainable Materials Management for the City of Newton, flagged that one of the biggest areas of concern that isn't addressed by the current battery EPR programs is embedded batteries.

<sup>&</sup>lt;sup>45</sup> MassDEP 2024 Recycling Survey. https://www.mass.gov/lists/recycling-solid-waste-data-for-massachusetts-cities-towns

<sup>&</sup>lt;sup>46</sup> Call2Recycle, 2024 Vermont Annual Report, page 16, accessed August 15, 2025, from https://dec.vermont.gov/sites/dec/files/documents/2024%20Vermont%20Annual%20Report.pdf.

<sup>&</sup>lt;sup>47</sup> According to the U.S. Census Bureau, Vermont had 279,612 households in 2023. Data from U.S. Census Bureau, 2023 American Community Survey 1-Year Estimates, Vermont, accessed August 15, 2025, from <a href="https://data.census.gov/profile/Vermont?q=040XX00US50">https://data.census.gov/profile/Vermont?q=040XX00US50</a>.

<sup>&</sup>lt;sup>48</sup> Figure derived from multiplying \$1.40 by 2,800,984 households in Massachusetts. Data from U.S. Census Bureau, 2023 American Community Survey 1-Year Estimates, Massachusetts, accessed August 15, 2025, from <a href="https://data.census.gov/profile/Massachusetts?g=040XX00US25">https://data.census.gov/profile/Massachusetts?g=040XX00US25</a>.

<sup>&</sup>lt;sup>49</sup> RRS fact sheet, Lithium-based Battery Fire Threat to U.S. Single Stream Material Recovery Facilities, accessed August 15, 2025, from

 $<sup>\</sup>label{lem:https://drive.usercontent.google.com/download?id=1ZS32M83OmOi2\_1rFYst5lyfd8akwaMSw&authuser=1\&acrobatPromotionSource=GoogleDriveListView.$ 

<sup>&</sup>lt;sup>50</sup> Ibid.

She noted that municipalities would still be financially responsible for educating consumers on how to dispose of products with embedded batteries safely since they aren't included in the PRBA model bill.

 Andrew Ferrara, Project Manager with Berkshire Environmental Action Team in Pittsfield, shared that they see embedded battery devices, especially vapes, "all the time" at river and park cleanups. He noted that currently, battery recyclers do not accept electronics with embedded batteries, particularly vapes, hazardous waste companies won't take some of them, and there doesn't seem to be a safe or correct solution

Damaged, defective, and recalled (DDR) batteries pose significant safety and cost challenges due to their fire risk. While recalled batteries are often handled separately through manufacturer warranties, they are frequently collected at HHW facilities along with other DDR batteries. As a result, proponents of new battery EPR laws are seeking to include most or all DDR batteries in these regulations to ensure their safe management, though recalled batteries are currently exempt from the PRBA's model bill. Comments on this consideration voiced during the commission meeting included the following:

- Commissioner Trabert raised the issue that many battery recall notices from manufacturers and retailers instruct consumers to take the recalled batteries to local HHW facilities. She cited a personal experience with this from a couple weeks earlier when she received a notice from Amazon that a device they purchased had been recalled and to take it to local HHW. She mentioned that at a battery ERP strategy meeting of local governments a Washington State official found that eight out of nine recalls instructed consumers to take recalled batteries to HHW programs as well. This transfers the financial and logistical burden of managing these potentially hazardous items onto local and state governments.
- Marc Boolish, Executive Director of the Rechargeable Battery Association (PRBA), indicated that there is a provision in the model law that would enable stewardship organizations to seek compensation for DDRs. He shared that everyone who touches DDR batteries requires dangerous-goods training.

Collection outside the EPR program: Some battery recycling companies operate independent of state EPR programs, often through contracts with original equipment manufacturers for valuable batteries such as those from EVs. According to PSI, these recyclers view EPR programs as unnecessary regulation, while critics argue they cherry-pick the most profitable batteries and leave lower-value batteries for others to manage.

 Daniel Zotos, Director of State Policy and Public Affairs, Redwood Materials, expressed support for EPR models for small consumer batteries on behalf of his company, a leading lithium-ion battery recycler in North America; however, the company believes current proposals in Massachusetts should better integrate the existing battery recycling industry. Redwood Materials advocates for an independent collection path for recyclers and waste management companies to work alongside a stewardship program, rather than being restricted by it. They highlight their own direct-to-consumer programs and the need to increase overall battery collection rates.

- Carin Stuart, Director of Steward Services at Call2Recycle, shared that a balance is needed
  in battery EPR laws to ensure the program is not penalized for batteries that are recycled
  outside of its official system. The organization is held accountable to a proposed collection
  rate but faces a challenge when other recyclers collect batteries without being part of the
  program, which can make their performance appear lower than it is. While Call2Recycle
  supports a multi-player collection scheme, they emphasize the need for a cohesive,
  collective voice in marketing and public education to avoid confusing consumers and to
  achieve higher collection rates.
- Phil Goddard, Manager of Facility Compliance and Technology Development, Integrated Solid Waste Management, Town of Bourne, drew a comparison between these concerns and a concern he heard from Recolor, a well-established recycled-paint company in Massachusetts. Recolor has expressed a fear that a paint EPR program may exclude them or negatively impact the system they've been building for years.

#### **Public Support**

The Massachusetts Product Stewardship Council has a "Battery Fact Sheet" and "10 Reasons to Support Battery EPR" on its website. 51

National Waste and Recycling Association<sup>52</sup>

Massachusetts Municipal Association<sup>53</sup>

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 $<sup>^{51} \</sup>underline{\text{https://massrecycle.org/initiatives-events/fact-sheets/}} \ \text{and} \ \underline{\text{https://massrecycle.org/wp-content/uploads/2025/07/10-Reasons-to-Support-Battery-EPR.pdf0}}$ 

<sup>&</sup>lt;sup>52</sup> https://wasterecycling.org/press\_releases/national-waste-recycling-association-continues-to-push-for-clarity-in-labeling-and-a-reasonable-approach-to-epr/

<sup>&</sup>lt;sup>53</sup> https://www.mma.org/advocacy/mma-asks-environment-and-natural-resources-committee-to-support-bills-to-encourage-recycling-and-reduce-plastics-pollution/

#### **EPR Commission Recommendation**

Table 4 shows a detailed breakdown of how the EPR Commission voted on the following resolution:

### TBD

 Table 4. —Extended Producer Responsibility Commission vote on enacting battery stewardship legislation

Commissioner	Title, Organization	Vote
John Beling, Chair	Deputy Commissioner, Massachusetts Department of Environmental Protection	
Rep. Christine Barber	Appointee for Rep. Michael Day, Massachusetts House of Representatives	
Senator Mike Barrett	Chair, Joint Committee on Telecommunications, Energy, and Utilities	
Sharon Byrne Kishida	Nominee, Senate Minority Leader	
Leigh-Anne Cole	Executive Director, Community Action Works	
Jose Delgado	Arise for Social Justice	
Janet Domenitz	Executive Director, MassPIRG	
Lew Dubuque	Vice President, Northeast Chapter, National Waste and Recycling Association	
Magda Garncarz	Vice President of Government Affairs, Associated Industries of Massachusetts	
Sarah Kalish	Executive Office of Economic Development	
Dalene LaPointe	Assistant Director, Environmental Toxicology Program at Massachusetts Department of Public Health	ı
David Melly	Legislative Director, Environmental League of Massachusetts	
Conor O'Shaughnessy	Budget Director and Environmental Policy Analyst, Office of Senator Bruce Tarr	
Andrew Potter	Chair, Select Board, Town of West Stockbridge	
Catherine Ratte	Director, Land Use and Environment Department, Pioneer Valley Planning Commission	
Bill Rennie	Senior Vice President, Retailers Association of Massachusetts	
Neil Rhein	Executive Director, Keep Massachusetts Beautiful	
Waneta Trabert	Vice President, MassRecycle	
Tracy Triplett	Senior Enforcement Counsel, Office of Attorney General Andrea Joy Campbell	
Abbie Webb	Vice President of Sustainability, Casella Waste Management	

 $<sup>^{54}</sup>$  From a vote taken at a  $\ensuremath{\text{XXX}}$ , 2025, EPR Commission meeting.

#### Appendix A: Public Comments

#### Comment 1

Please take into account e-cigarettes and vapes. Many of these are now sold as single use, and there is no way for the consumer to safely separate the battery from other components. The majority of battery recyclers will not accept vapes, and there is no current safe and acceptable method of disposal for these items. They are very often littered, or thrown away with regular municipal solid waste, creating additional hazards.

#### Response 1

Lithium-ion batteries are scheduled to be discussed at Meeting #4 of the Commission on July 16, 2025. The Massachusetts Department of Environmental Protection (MassDEP) will note batteries in e-cigarettes and vapes as a particular issue to consider.



#### Appendix B: Terms and Definitions

Primary batteries cannot easily be recharged after one use and are discarded following discharge. They have a lower initial cost than secondary batteries, but a higher life-cycle cost, and are traditionally limited to specific applications.55

Secondary batteries can be electrically recharged after use to their original condition by sending electricity through the circuit in the opposite direction to the current during discharge. They have a higher initial cost than primary batteries, but a lower life-cycle cost (provided charging is convenient and inexpensive). They are versatile and have a variety of applications. 56



<sup>&</sup>lt;sup>55</sup> University of Washington, "Classification," accessed August 7, 2025, from https://depts.washington.edu/matseed/batteries/MSE/classification.html. <sup>56</sup> *lbid.* 

Appendix C: PBRA Model batteries EPR bill language <sup>57</sup>			
The State of hereby enacts as follows:			
Section 1. SHORT TITLE.			
This act shall be known and may be cited as the Safe Battery Collection and Recycling Stewardship Act.			
Section 2. FINDINGS AND PURPOSE.			
(1) It is in the public interest of the citizens of to encourage the recovery and reuse of materials, such as metals, that replace the output of mining and other extractive industries.			
(2) Without a dedicated portable battery stewardship program, battery user confusion regarding proper disposal options will continue to persist.			
(3) Ensuring the proper handling, recycling, and end-of-life management of used portable batteries prevents the release of toxic materials into the environment and removes materials from the waste stream that, if mishandled, may present safety concerns to workers, such as igniting fires at solid waste handling facilities, including materials recovery facilities (MRFs). For these reasons, batteries should not be placed into commingled recycling containers or disposed of via traditional garbage collection containers.			
(4) Jurisdictions around the world have successfully implemented battery stewardship laws that have helped address the challenges posed by the end-of-life management of portable batteries. Because it is difficult for customers to differentiate between types and chemistries of batteries, it is the best practice for battery stewardship programs to collect all portable battery types and chemistries.			
Section 3. DEFINITIONS.			
The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.			
(1) "Department" means the (name of state) Department of			
(2) "Battery-containing product" means a product that contains or is packaged with rechargeable or primary batteries that are covered batteries. A "battery-containing product" does not include a covered device as defined by the (state e-waste statute).			
(3) "Battery stewardship organization" means a producer that directly implements a battery stewardship plan required under this chapter, or one or more organizations each with five or more producers designated by a group of producers to implement a battery stewardship plan required under this chapter.			
57 Template for laws passed in Colorado, Connecticut, and Nebraska in 2025, supplied by PRBA – The Rechargeable Battery Association.			

(4)	"Collection rate" means a percentage, by weight, of covered batteries that a battery
stewar	dship organization collects that is calculated by dividing the total weight of primary and
rechar	geable batteries collected during the previous calendar year by the average annual weight of
primar	y and rechargeable batteries that were estimated to have been sold in the state by all
produc	ers participating in that approved battery stewardship plan during the previous three
calend	ar vears.

- (5) "Covered battery":
- (a) Means a portable battery and a medium format battery.
- (b) Does not include:
- (i) A battery contained within a medical device, as specified in Title 21 U.S.C. Section 321(h) as it existed as of the effective date of this section, that is not designed and marketed for sale or resale principally to consumers for personal use;
- (ii) A battery that contains an electrolyte as a free liquid;
- (iii) A lead-acid battery weighing more than 11 pounds;

(iv)	A lead acid battery subject to the provisions of	, the (name of
state)_	Act;	

- (v) A battery in a battery-containing product that is not intended or designed to be easily removable from the battery-containing product;
- (vi) A battery that is being recalled for safety reasons; and
- (vii) A battery designed to power a vehicle, part of a motor vehicle, or a component part of a motor vehicle assembled by, or for, a vehicle manufacturer or franchised dealer, including replacement parts for use in a motor vehicle.
- (6) "Easily removable" means designed by the manufacturer to be removable by the user of the product with no more than commonly used household tools.
- (7) "Environmentally sound management practices" means practices undertaken in connection with this act that: (a) comply with all applicable laws and rules in place to protect workers, public health, and the environment; (b) provide for adequate recordkeeping, tracking, and documenting of the fate of materials within the state and beyond; and (c) include comprehensive liability coverage for a battery stewardship organization, including environmental liability coverage that is commercially practicable.
- (8) "Large format battery" means:
- (a) A rechargeable battery that weighs more than 25 pounds or has a rating of more than 2,000 Watt-hours; or
- (b) A primary battery that weighs more than 25 pounds.

- (11) "Medium format battery" means the following primary or rechargeable covered batteries:
- (a) For rechargeable batteries, a battery weighing more than 11 pounds or having a rating of more than 300 watt-hours, or both, but weighing no more than 25 pounds and having a rating of no more than 2,000 Watt-hours;
- (b) For primary batteries, a battery weighing more than 4.4 pounds but not more than 25 pounds.
- (12) "Portable battery" means the following primary or rechargeable covered batteries:
- (a) For rechargeable batteries, a battery weighing no more than 11 pounds and having a rating of no more than 300 Watt-hours:
- (b) For primary batteries, a battery weighing no more than 4.4 pounds.
- (13) "Primary battery" means a battery that is not capable of being recharged.
- (14) "Producer" means the following person responsible for compliance with requirements under this chapter for a covered battery or battery-containing product sold, offered for sale, or distributed in or into (name of state):
- (a) For covered batteries:
- (i) If the battery is sold under the brand of the battery manufacturer, the producer is the person that manufactures the battery;
- (ii) If the battery is sold under a retail brand or under a brand owned by a person other than the manufacturer, the producer is the brand owner;
- (iii) If there is no person to which (a)(i) or (ii) of this subsection applies, the producer is the person that is the licensee of a brand or trademark under which the battery is used in a commercial enterprise, sold, offered for sale, or distributed in or into (name of state), whether or not the trademark is registered in (name of state);
- (iv) If there is no person described in (a)(i) through (iii) of this subsection within the United States, the producer is the person who is the importer of record for the battery into the United States for use in a commercial enterprise that sells, offers for sale, or distributes the battery in (name of state);
- (v) If there is no person described in (a)(i) through (iv) of this subsection with a commercial presence within (name of state), the producer is the person who first sells, offers for sale, or distributes the battery in or into (name of state).
- (b) For covered battery-containing products:
- (i) If the battery-containing product is sold under the brand of the product manufacturer, the producer is the person that manufactures the product;

- (ii) If the battery-containing product is sold under a retail brand or under a brand owned by a person other than the manufacturer, the producer is the brand owner;
- (iii) If there is no person to which (b)(i) or (ii) of this subsection applies, the producer is the person that is the licensee of a brand or trademark under which the product is used in a commercial enterprise, sold, offered for sale, or distributed in or into (name of state), whether or not the trademark is registered in (name of state);
- (iv) If there is no person described in (b)(i) through (iii) of this subsection within the United States, the producer is the person who is the importer of record for the product into the United States for use in a commercial enterprise that sells, offers for sale, or distributes the product in (name of state):
- (v) If there is no person described in (b)(i) through (iv) of this subsection with a commercial presence within (name of state), the producer is the person who first sells, offers for sale, or distributes the product in or into (name of state);
- (vi) A producer does not include any person who only manufactures, sells, offers for sale, distributes, or imports into (name of state) a battery-containing product if the only batteries used by the battery-containing product are supplied by a producer that has joined a registered battery stewardship organization as the producer for that covered battery under this chapter. Such a producer of covered batteries that are included in a battery-containing product must provide written certification of that membership to both the producer of the covered battery-containing product and a battery stewardship organization of which the battery producer is a member.
- (15) "Program" means a program implemented by a battery stewardship organization consistent with an approved battery stewardship plan.
- (16) "Rechargeable battery" means a battery that contains one or more voltaic or galvanic cells, electrically connected to produce electric energy, designed to be recharged.
- (17) "Recycling" is as defined in (name of state)\_\_\_\_\_\_ Act.
- (18) "Recycling efficiency rate" means the ratio of the weight of covered battery components and materials recycled by a program operator from covered batteries to the weight of those covered batteries collected by the program operator.
- (19) "Retailer" means a person who sells covered batteries or battery-containing products in or into this state or offers or otherwise makes available covered batteries or battery-containing products to a customer, including other businesses, in this state.

Section 4. REQUIREMENT THAT PRODUCERS IMPLEMENT A STEWARDSHIP PLAN.

Beginning January 1, 20XX:

(1) Each producer selling, offering or making available for sale, or distributing covered batteries or battery-containing products in or into (name of state) shall participate in an approved (name of state) state battery stewardship plan through participation in and appropriate funding of a battery stewardship organization; and

(2) A producer that does not participate in a battery stewardship organization and battery stewardship plan may not sell, offer or make available for sale, or distribute covered batteries or battery-containing products covered by this chapter in or into (name of state).

#### Section 5. ROLE OF RETAILERS.

- (1) Beginning July 1, 20XX, a retailer may not sell, offer or make available for sale, or distribute a covered battery or battery-containing product unless the producer of the covered battery or battery-containing product certifies to the retailer that the producer participates in a battery stewardship organization whose plan has been approved by the Department.
- (2) A retailer is not in violation of the requirements of subsection (1) of this section and is not subject to penalties under section 12 of this act as long as the website made available by the Department under section 12 of this act lists, as of the date a product is made available for retail sale, a producer or brand of covered battery or battery-containing product sold by the retailer as being a participant in an approved plan or the implementer of an approved plan.
- (3) Retailers of covered batteries or battery-containing products are not required to make retail locations available to serve as collection sites for a stewardship program operated by a battery stewardship organization. Retailers that serve as a collection site must participate in an approved stewardship plan and comply with the requirements for collection sites, consistent with section 9 of this act.
- (4) A retailer may not sell, offer or make available for sale, or distribute covered batteries or battery-containing products, unless those batteries are marked consistent with the requirements of section 14 of this act. A producer of a battery-containing product must certify to the retailers of their product that the battery contained in the battery-containing product is marked consistent with the requirements of section 14 of this act. A retailer may rely on this certification for purposes of compliance under this subsection.
- (5) A retailer selling or offering covered batteries or battery-containing products for sale in (name of state) may provide information, provided to the retailer by a battery stewardship organization, regarding available end-of-life management options for covered batteries collected by a battery stewardship organization. The information that a battery stewardship organization must make available to retailers for voluntary use by retailers must include, but is not limited to, in-store signage, written materials, and other promotional materials that retailers may use to inform customers of the available end-of-life management options for covered batteries collected by a battery stewardship organization.
- (6) Retailers, producers, or battery stewardship organizations shall not charge a specific pointof-sale fee to consumers to cover the administrative or operational costs of a battery stewardship organization or the battery stewardship program.

#### Section 6. STEWARDSHIP PLAN COMPONENTS.

- (1) By July 1, 20XX, each battery stewardship organization must submit a plan for covered portable batteries to the Department for approval. By July 1, 2029, each battery stewardship organization must submit a plan for covered medium format batteries to the Department for approval. The Department must review and may approve a plan based on whether it contains the following components:
- (a) Lists and provides contact information for each member producer, battery brand, and battery-containing product brand covered in the plan;
- (b) Proposes performance goals, consistent with section 7 of this act, including establishing performance goals for each of the next three upcoming calendar years of program implementation;
- (c) Describes how a battery stewardship organization will make retailers aware of their obligation to sell only covered batteries and battery-containing products of producers participating in an approved plan;
- (d) Describes the education and communications strategy being implemented to effectively promote participation in the approved battery stewardship program and provide the information necessary for effective participation of consumers, retailers, and others;
- (e) Describes how a battery stewardship organization will make available to collection sites, for voluntary use, signage, written materials, and other promotional materials that collection sites may use to inform consumers of the available end-of-life management options for covered batteries collected by a battery stewardship organization, and informing consumers and battery collection sites that automotive lead acid batteries should be returned to retail locations where these batteries are sold:
- (f) Lists promotional activities to be undertaken, and the identification of consumer awareness goals and strategies that the program will employ to achieve these goals after the program begins to be implemented;
- (g) Includes collection site safety training procedures related to covered battery collection activities at collection sites, including appropriate protocols to reduce risks of spills or fires and response protocols in the event of a spill or fire, and a protocol for safe management of damaged batteries that are returned to collection sites;
- (h) Describes the method to establish and administer a means for fully funding the program in a manner that equitably distributes the program's costs among the member producers that are part of a battery stewardship organization. For producers that elect to meet the requirements of this chapter individually, without joining a battery stewardship organization, the plan must describe the proposed method to establish and administer a means for fully funding the program;
- (i) Describes the financing methods used to implement the plan, consistent with section 7 of this act;
- (j) Describes how the program will collect all covered battery chemistries and brands on a free, continuous, convenient, visible, and accessible basis, and consistent with the requirements of

section 9 of this act, including a description of how the statewide convenience standard will be met and a list of collection sites, including the addresses of collection sites;

- (k) Describes the criteria to be used in the program to determine whether an entity may serve as a collection site for discarded batteries under the program;
- (I) Establishes collection goals for each of the first three years of implementation of the battery stewardship plan that are based on the estimated total weight of primary and rechargeable covered batteries that have been sold in the state in the previous three calendar years by the member producers participating in the battery stewardship plan;
- (m) Identifies proposed sorters, transporters, processors, and facilities to be used by the program for the final disposition of batteries and how collected batteries will be managed in an environmentally sound manner at facilities operating in compliance with human health and environmental protection standards that are broadly equivalent to or better than those required in the United States; and
- (n) Details how the program will help (name of state) achieve the target recycling efficiency rate, calculated consistent with section 11 of this act, of at least 60 percent for rechargeable batteries and at least 70 percent for primary batteries; and \_\_\_\_
- (o) Describes how the public education and outreach components of the program under section 10 of this act will be implemented.
- (2) The Department shall review a stewardship plan for compliance with this chapter and shall approve, disapprove, or conditionally approve a plan within 120 days of receipt of a plan. The Department may approve multiple plans sharing, on an equitable basis, the costs of implementing elements of the plans that benefit all approved plans from battery stewardship organizations, or a producer that directly implements a battery stewardship plan, as applicable. If the Department disapproves a stewardship plan submitted by a battery stewardship organization, the Department shall explain how the stewardship plan does not comply with this chapter and provide written notice to a battery stewardship organization within 30 days of disapproval. A battery stewardship organization may resubmit to the Department a revised stewardship plan within 60 days of the date the written notice was issued, and the Department shall review the revised stewardship plan within 90 days of resubmittal. If a revised stewardship plan is disapproved by the Department, a producer operating under the stewardship plan shall not be in compliance with this chapter until the Department approves a stewardship plan submitted by a battery stewardship organization that covers the producer's products.
- (3) A battery stewardship organization must submit a new plan to the Department for approval:
- (a) If there are significant changes to the methods of collection, transport, or end-of-life management of covered batteries under section 9 of this act that are not provided for in the plan. The Department shall identify the types of significant changes that require a new plan to be submitted to the Department for approval. For purposes of this subsection, adding or removing a processor or transporter under the plan is not considered a significant change that requires a plan resubmittal;

- (b) To address the novel inclusion of medium format batteries as covered batteries under the plan; and
- (c) No less than every five years.
- (4) A battery stewardship organization must provide plan amendments to the Department for approval:
- (a) When proposing changes to the performance goals under section 7 of this act based on the up-to-date experience of the program;
- (b) When there is a change to the method of financing plan implementation under section 8 of this act. This does not include changes to the fees or fee structure established in the plan;
- (c) When the Department approves more than one stewardship organization, and performance goals for each stewardship organization are impacted accordingly; or
- (d) When adding or removing a processor, as part of a quarterly update submitted to the Department.
- (5) A battery stewardship organization must notify the Department on a quarterly basis if a producer begins or ceases to participate in a battery stewardship organization. This quarterly notice, if required, must include a current list of the producers and brands participating in the plan.
- (6) No earlier than five years after the initial approval of a plan, the Department may require a battery stewardship organization to submit a revised plan, which may include improvements to the collection site network or increased expenditures dedicated to education and outreach if the approved plan has not met the performance goals under section 7 of this act.

#### Section 7. STEWARDSHIP PROGRAM COMPONENTS—PERFORMANCE GOALS.

- (1) Each battery stewardship plan must include performance goals that measure, on an annual basis, the achievements of the program, including:
- (a) The quantities of batteries collected; and
- (b) Public convenience and accessibility of the program.
- (2) The performance goals established in each battery stewardship plan must include, but are not limited to:
- (a) Target recycling efficiency rates of at least 60 percent for rechargeable batteries and at least 70 percent for primary batteries; and
- (b) Goals for convenience and accessibility that meet or exceed the minimum requirements established in section 9 of this act.
- (c) A battery stewardship organization is not authorized to reduce or cease collection, education and outreach, or other activities implemented under an approved plan based on achievement of program performance goals.

#### Section 8. STEWARDSHIP PROGRAM COMPONENTS—FUNDING.

- (1) Each battery stewardship organization must ensure adequate funding is available to fully implement approved battery stewardship plans, including the implementation of aspects of the plan addressing:
- (a) Covered battery collection, transporting, and processing;
- (b) Education and outreach;
- (c) Program evaluation; and
- (d) Payment of the administrative fees to the Department under section 12 of this act. The fees shall be allocated between battery stewardship organizations, as applicable.
- (2) A battery stewardship organization implementing a battery stewardship plan on behalf of producers must develop a system to collect charges from participating producers to cover the costs of plan implementation.
- (a) Each battery stewardship organization is responsible for all costs of participating covered battery collection, transportation, processing, education, administration, Department reimbursement, recycling, and end-of-life management in accordance with the requirements of this act and environmentally sound management practices.
- (b) Each battery stewardship organization must equitably share the cost of reimbursing local governments and solid waste or recyclables handling facilities for demonstrable and reasonable costs incurred as a result of a local government facility or solid waste or recyclables handling facility serving as a collection site for its program including, but not limited to, associated labor costs and other costs associated with accessibility and collection site standards such as storage.
- (c) A battery stewardship organization shall at a minimum provide collection sites with appropriate containers for covered batteries subject to its program, training, signage, safety quidance, and educational materials, at no cost to the collection sites.

## Section 9. STEWARDSHIP PROGRAM COMPONENTS—COLLECTION AND MANAGEMENT REQUIREMENTS.

- (1) Each battery stewardship organization implementing a battery stewardship plan must provide for the collection of all covered batteries, including all chemistries and brands of covered batteries, on a free, continuous, convenient, visible, and accessible basis to any person, business, government Department, or organization. Except as provided in subsection (2)(b) of this section, each battery stewardship plan must allow any person, business, government Department, or organization to deliver each chemistry and brand of covered battery at each collection site that counts towards the satisfaction of the collection site criteria in subsection (3) of this section.
- (2) Each battery stewardship organization implementing a battery stewardship plan must provide as follows:

- (a) For each collection site utilized by the program, a battery stewardship organization must provide suitable collection containers for covered batteries that are segregated from other solid waste or make mutually agreeable alternative arrangements for the collection of batteries at the site. The location of collection containers at each collection site used by the program must be within view of a responsible person and must be accompanied by signage made available to the collection site by a battery stewardship organization that informs customers regarding the end-of-life management options for batteries provided by the collection site under this chapter. Each collection site must meet applicable federal, state, and local regulatory requirements while adhering to the operations manual and other safety information provided to the collection site by a battery stewardship organization.
- (b) That medium format batteries may only be collected at household hazardous waste collection sites or other staffed collection sites that meet applicable federal, state, and local regulatory requirements to manage medium format batteries.
- (c) For damaged and defective batteries:
- (i) Damaged and defective batteries are to be collected only at collection sites staffed by persons trained to handle and ship those batteries.
- (ii) Each battery stewardship organization must equitably share the cost of providing for collection of damaged and defective batteries in each county of the state, either through collection sites or collection events, with qualified staff as specified in (c)(i) of this subsection. Collection events should be provided periodically throughout the year where practicable, but must be provided at least once per year at a minimum, in each county in which there are not permanent collection sites providing for the collection of damaged and defective batteries.
- (iii) As used in this subsection, "damaged and defective batteries" means batteries that have been damaged or identified by the manufacturer as being defective for safety reasons, that have the potential of producing a dangerous evolution of heat, fire, or short circuit, as referred to in 49 C.F.R. Sec.173.185(f) as of January 1, 2023, or as may be established by the Department by rule to maintain consistency with federal standards.
- (3) Each battery stewardship organizations implementing a battery stewardship plan must provide as follows:
- (a) A battery stewardship plan that ensures statewide collection opportunities for all covered batteries. Battery stewardship organizations shall coordinate activities with other program operators, including other covered battery collection and recycle programs and electronic waste recyclers, with regard to the proper management or recycling of collected covered batteries, for purposes of providing the efficient delivery of services and avoiding unnecessary duplication of effort and expense. Statewide collection opportunities must be determined by geographic information that considers permanent collection sites. A program may rely, in part, on collection events to supplement the permanent collection services required in (b) and (c) of this subsection. However, only permanent collection services specified in (b) and (c) of this subsection qualify towards the satisfaction of the requirements of this subsection.

- (b) Within two years of approval of a battery stewardship organization plan for portable batteries, each battery stewardship organization must provide statewide collection opportunities that include the provision of:
- (i) One permanent collection site in each county that has a population density that is less than 250 individuals per square mile;
- (ii) Two permanent collection sites in each county that has a population density that is greater than or equal to 250 individuals per square mile but less than 500 individuals per square mile;
- (iii) Three permanent collection sites in each county that has a population density that is greater than or equal to 500 individuals per square mile but less than 750 individuals per square mile;
- (iv) Four permanent collection sites in each county that has a population density that is greater than or equal to 750 individuals per square mile but less than 1,000 individuals per square mile;
- (v) Five permanent collection sites in each county that has a population density that is greater than or equal to 1,000 individuals per square mile but less than 5,000 individuals per square mile;
- (vi) Fifteen permanent collection sites in each county that has a population density that is greater than or equal to 5,000 individuals per square mile;
- (vii) If a municipality has a population of more than 1,000,000 residents, the program shall provide 10 additional permanent collection sites to be located within that municipality, with the collection sites required by paragraph (vi) of this subsection to be located, to the extent reasonably possible, outside the municipality.
- (c) Within two years of approval of a battery stewardship organization plan for medium format batteries, a battery stewardship organization must provide statewide collection opportunities that include the provision of:
- (i) At least 10 permanent collection sites in (name of state) during the initial five-year plan period;
- (ii) Reasonable geographic dispersion of permanent collection sites throughout the state;
- (iii) After the initial five-year plan period, a permanent collection site in each county of at least 200,000 persons, as determined by the most recent federal census; and
- (iv) Service to areas without a permanent collection site. A battery stewardship organization must ensure that there is a collection event at least once every three years in each county of the state which does not have a permanent collection site. Such collection events must provide for the collection of all medium format batteries, including damaged and defective batteries.
- (4) Each battery stewardship organization implementing a battery stewardship plan must:
- (c) Use existing public and private waste collection services and facilities, including where cost-effective, mutually agreeable, and otherwise practicable, battery collection sites that are established through other battery collection programs, services, transporters, consolidators, processors, and retailers.

- (d) Use as a collection site for covered batteries any retailer, wholesaler, municipality, solid waste management facility, household hazardous waste facility, or other entity that meets the criteria for collection sites in the approved plan up to the minimum number of sites required for compliance with subsection (3) of this section, upon the submission of a request by such entity to a battery stewardship organization to serve as a collection site. Battery stewardship programs may use additional collection sites in excess of the minimum required in subsection (3) of this section as may be agreed between a battery stewardship organization and the collection site.
- (e) Use as a site for a collection event for covered batteries any retailer, wholesaler, municipality, solid waste management facility, household hazardous waste facility, or other entity that meets the criteria for collection events in the approved plan up to the minimum number of sites required for compliance with subsection (3) of this section, upon the submission of a request by such entity to a battery stewardship organization to serve as a site for a collection event. Battery stewardship programs may use additional sites for collection events in excess of the minimum required in subsection (3) of this section as may be agreed between the battery stewardship organizations and the collection sites.
- (c) A battery stewardship organization may issue a warning, suspend, or terminate a collection site or service that does not adhere to the collection site criteria in the approved plan or that poses an immediate health and safety concern.
- (5) Battery Stewardship Programs:
- (a) Are required to provide for the collection of loose covered batteries.
- (b) Are not required to provide for the collection of battery-containing products.
- (c) Are not required to provide for the collection of batteries that:
- (i) Are not easily removable from the product other than by the manufacturer; and
- (ii) Remain contained in a battery-containing product at the time of delivery to a collection site.
- (d) Are not required to provide for the collection of batteries still contained in covered device as defined by the Covered Device Recycling Act (Act 108 of 2010), P.L. 1083 35 P.S. Chapter §§6031.101, et seq.
- (e) Are not required to provide for the collection of batteries or battery-containing products being recalled for safety reasons. A battery stewardship organization may seek reimbursement from the producer of a recalled battery or battery containing product for the costs incurred in collecting, transporting, and processing such batteries and products.

Section 10. STEWARDSHIP PROGRAM COMPONENTS—EDUCATION AND OUTREACH REQUIREMENTS.

- (1) Each battery stewardship organization must carry out promotional activities in support of plan implementation including, but not limited to, the development:
- (a) And maintenance of a website;

- (b) And placement of advertisements for use on social media or other relevant media platforms;
- (c) Of promotional materials about the program and the restriction on the disposal of covered batteries in section 15 of this act to be used by persons including but not limited to retailers, government agencies, waste and recycling collectors, and organizations;
- (d) And distribution of collection site safety training procedures that are in compliance with state law applicable to collection sites to help ensure proper management of covered batteries at collection sites; and
- (2) Each battery stewardship organization must provide:
- (a) Consumer-focused educational promotional materials to each collection site used by the program and accessible by customers of retailers that sell covered batteries or battery-containing products; and
- (b) Safety information related to covered battery collection activities to the operator of each collection site, including appropriate protocols to reduce risks of spills or fires, response protocols in the event of a spill or fire, and response protocols in the event of detection of a damaged or defective battery.
- (c) Educational materials to the operator of each collection site for the management of recalled batteries, which are not intended to be part of collection as provided under section 9 of this act, to help facilitate transportation and processing of recalled batteries.
- (4) A battery stewardship organization may seek reimbursement from the producer of any recalled battery for expenses incurred in the collection, transportation, or processing of those batteries
- (5) Upon request by a retailer or other potential collector, a battery stewardship organization must provide the retailer or other potential collector educational materials describing collection opportunities for batteries.
- (6) If multiple battery stewardship organizations are implementing plans approved by the Department, the battery stewardship organizations must coordinate in carrying out their education and outreach responsibilities under this section and must include in their annual reports to the Department under section 11 of this act a summary of their coordinated education and outreach efforts.

#### Section 11. REPORTING REQUIREMENTS.

- (1) By June 1, 20XX, and each June 1st thereafter, each battery stewardship organization must submit an annual report to the Department covering the preceding calendar year of battery stewardship plan implementation. The report must include:
- (a) After five years of implementation of an approved battery stewardship plan, a covered battery producer or battery stewardship organization shall hire an independent third party to conduct a one-time audit of the battery stewardship plan and plan operation. The auditor shall examine the effectiveness of the battery stewardship plan in collecting and recycling covered

batteries. The independent auditor shall examine the cost effectiveness of the plan and compare it to that of collection plans or programs for covered batteries in other jurisdictions.

- (b) A summary financial statement documenting the financing of the battery stewardship organization's program and an analysis of program costs and expenditures, including an analysis of the program's expenses, such as collection, transportation, recycling, education, and administrative overhead. The summary financial statement must be sufficiently detailed to provide transparency that funds collected from producers as a result of their activities in (name of state) are spent on program implementation in (name of state). Battery stewardship organizations implementing similar battery stewardship programs in multiple states may submit a financial statement including all covered states, as long as the statement breaks out financial information pertinent to (name of state);
- (c) The weight, by chemistry, of covered batteries collected under the program;
- (d) The weight of materials recycled from covered batteries collected under the program, in total, and by method of battery recycling;
- (e) A calculation of the recycling efficiency rates, as measured consistent with subsection (2) of this section;
- (f) For each facility used for the final disposition of batteries, a description of how the facility recycled or otherwise disposed of batteries and battery components;
- (g) The weight and chemistry of batteries sent to each facility used for the final disposition of batteries. The information in this subsection (1)(f) may be approximated for program operations in (name of state) based on extrapolations of national or regional data for programs in operation in multiple states;
- (h) The collection rate achieved under the program, including a description of how this collection rate was calculated and how it compares to the collection rate goals pursuant to section 7 of this act;
- (i) The estimated aggregate sales, by weight and chemistry, of batteries and batteries contained in or with battery-containing products sold in (name of state) by participating producers for each of the previous three calendar years;
- (j) A description of the manner in which the collected batteries were managed and recycled, including a discussion of best available technologies and the recycling efficiency rate;
- (k) A description of education and outreach efforts supporting plan implementation including, but not limited to, a summary of education and outreach provided to consumers, collection sites, manufacturers, distributors, and retailers by the program operator for the purpose of promoting the collection and recycling of covered batteries, a description of how that education and outreach met the requirements of section 10 of this act, samples of education and outreach materials, a summary of coordinated education and outreach efforts with any other battery stewardship organizations implementing a plan approved by the Department, and a summary of any changes made during the previous calendar year to education and outreach activities;

- (I) A list of all collection sites and an address for each listed site, and an up-to-date map indicating the location of all collection sites used to implement the program, with links to appropriate websites where there are existing websites associated with a site;
- (m) A description of methods used to collect, transport, and recycle covered batteries by a battery stewardship organization;
- (n) A summary on progress made towards the program performance goals established under section 7 of this act, and an explanation of why performance goals were not met, if applicable; and
- (2) The weight of batteries or recovered resources from those batteries must only be counted once and may not be counted by more than one battery stewardship organization.
- (3) In addition to the requirements of subsection (1) of this section, with respect to each facility used in the processing or disposition of batteries collected under the program, a battery stewardship organization must report:
- (a) Whether the facility is located domestically, in an organization for economic cooperation and development country, or in a country that meets organization for economic cooperation and development operating standards; and
- (b) What facilities processed the batteries, and for domestic facilities a summary of any violations of environmental laws and regulations over the previous three years at each facility.
- (4) If a battery stewardship organization has disposed of covered batteries through energy recovery, incineration, or landfilling during the preceding calendar year of program implementation, the annual report must specify the steps that the battery stewardship organization will take to make the recycling of covered batteries cost-effective, where possible, or to otherwise increase battery recycling rates achieved by the battery stewardship organization.
- (5) A producer or battery stewardship organization that submits information or records to the Department under this chapter may request that the information or records be made available only for the confidential use of the Department, the secretary of the Department, or the appropriate division of the Department. The secretary of the Department must consider the request and if this action is not detrimental to the public interest and can otherwise be restricted in accordance with the policies and purposes of the (name of state) Right-to-Know Law (state statute), the secretary must grant the request for the information to remain confidential.

#### Section 12. FEE AND DEPARTMENT ROLE.

- (1) Each battery stewardship organization submitting a battery stewardship plan, revision or amendment, shall pay a fee to the Department, as follows:
- (a) Such fee will be sufficient to cover the department's full costs of implementing, administering, and enforcing this chapter;
- (b) Prior to June 1, 20XX, and every other June 1st thereafter, the department shall identify the costs it incurred under this section and set a fee schedule for plan submissions that is adequate to reimburse the department's full costs of administering this chapter.

- (c) The total amount of the annual fees collected under this section shall not exceed the amount necessary to reimburse costs incurred by the department to administer this section.
- (2) The responsibilities of the department in implementing, administering, and enforcing this chapter include, but are not limited to:
- (a) Reviewing submitted stewardship plans and plan amendments and making determinations as to whether to approve the plan or plan amendment;
- (i) The Department must provide a letter of approval or conditional approval for the plan or plan amendment if it provides for the establishment of a stewardship program that meets the requirements of sections 6 through 10 of this act;
- (ii) If a plan or plan amendment is rejected, the department must provide the reasons for rejecting the plan to the battery stewardship organization. The battery stewardship organization must submit a new plan within 60 days after receipt of the letter of disapproval; and
- (iii) When a plan or an amendment to an approved plan is submitted under this section, the department shall make the proposed plan or amendment available for public review and comment for at least 30 days;
- (b) Reviewing annual reports submitted under section 11 of this act within 90 days of submission to ensure compliance with that section;
- (c) Ensuring public awareness by:
- (i) Maintaining a website that lists producers and their brands that are participating in an approved battery stewardship plan, and that makes available to the public each plan, plan amendment, and annual report received by the department under this chapter;
- (ii) Upon the date the first plan is approved or conditionally approved, posting on its website a list of producers and their brands for which the department has approved a plan. The department must update the list of producers and brands participating under an approved program plan based on information provided to the Department from battery stewardship organizations; and
- (d) Providing technical assistance to producers and retailers related to the requirements of this chapter and issuing orders or imposing civil penalties authorized under section 13 of this act where the technical assistance efforts do not lead to compliance by a producer or retailer.

#### Section 13. PENALTIES AND CIVIL ACTION PROVISIONS.

- (1) Any person who violates any provision of this Act is liable for a civil penalty of \$2,500 per violation, except that the failure to pay a fee under this Act shall cause the person who fails to pay the fee to be liable for a civil penalty that is double the applicable fee.
- (2) The penalties provided for in this section may be recovered in a civil action brought by the department. Any penalties collected under this section in an action in which the department has prevailed shall be deposited into the (name of state), \_\_\_\_\_\_ Fund, to be used in accordance with the provision of the (name of state)\_\_\_\_\_.

- (3) The department may institute a civil action for an injunction, prohibitory or mandatory, to restrain violations of this Act or to require such actions as may be necessary to address violations of this Act.
- (4) The penalties and injunctions provided in this Act are in addition to any penalties, injunctions, or other relief provided under any other State law. Nothing in this Act bars a cause of action by the State for any other penalty, injunction, or other relief provided by any other applicable law
- (6) No penalty may be assessed on an individual or resident for the improper disposal of covered batteries as described in section 15 of this act in a noncommercial or residential setting.

#### Section 14. MARKING REQUIREMENTS FOR BATTERIES.

- (1) Beginning January 1, 20XX, a producer or retailer may only sell, distribute, or offer for sale in or into (name of state) a covered battery, or battery-containing product that contains a battery that is designed or intended to be easily removable from the product, if the battery is:
- (a) Marked with an identification of the producer of the battery, unless the battery is less than one-half inch in diameter or does not contain a surface whose length exceeds one-half inch; and
- (b) Beginning January 1, 20XX, marked with proper labeling to ensure proper collection and recycling, by identifying the chemistry of the battery and including an indication that the battery should not be disposed of as household waste. This paragraph does not apply to an indication that the battery should not be disposed of as household waste if the battery is less than one-half inch in diameter or does not contain a surface with a length that exceeds one-half inch.
- (2) A producer shall certify to its customers, or to the retailer if the retailer is not the customer, that the requirements of this section have been met, as provided in section 5 of this act.
- (3) The department may amend, by rule, the requirements of subsection (1) of this section to maintain consistency with the labeling requirements or voluntary standards for batteries established in federal law.

#### Section 15. GENERAL BATTERY DISPOSAL AND COLLECTION REQUIREMENTS.

#### Effective January 1, 20XX:

- (1) All persons must handle unwanted covered batteries through one of the following options:
- (a) Delivery to the collection sites established by or included in the programs created by this chapter; or
- (b) For covered batteries generated by persons that are regulated generators of batteries covered under federal or state hazardous or solid waste laws, management in a manner consistent with the requirements of those laws.
- (2) A fee may not be charged at the time unwanted covered batteries are delivered or collected for management.

- (3) All covered batteries may only be collected, transported, and processed in a manner that meets the standards established for a battery stewardship organization in a plan approved by the Department, unless the batteries are being managed as described in subsection (1)(b) of this section.
- (4) A person may not place covered batteries in waste containers for disposal at incinerators, waste to energy facilities, or landfills.
- (5) A person may not place covered batteries in or on a container for mixed recyclables unless there is a separate location or compartment made available and designated for the covered battery that complies with local government collection standards or guidelines.
- (6) An owner or operator of a solid waste facility may not be found in violation of this section if the facility has posted in a conspicuous location a sign stating that covered batteries must be managed through collection sites established by a battery stewardship organization and are not accepted for disposal.
- (7) A solid waste collector may not be found in violation of this section for a covered battery placed in a disposal container by the generator of the covered battery.

#### Section 16. PRIVATE RIGHT OF ACTION.

A battery stewardship organization implementing an approved plan may bring a civil action or actions to recover costs, damages, and fees, as specified in this section, from a producer who sells or otherwise makes available in (name of state) covered batteries or battery-containing products not included in an approved plan in violation of the requirements of this chapter. An action under this section may be brought against one or more defendants. An action may only be brought against a defendant producer when the stewardship program incurs costs in (name of state), including reasonable incremental administrative and program promotional costs, in excess of \$1,000 to collect, transport, and recycle or otherwise dispose of the covered batteries or battery-containing products of a nonparticipating producer.

- (b) A battery stewardship organization may bring a civil action against a producer of a recalled battery to recover costs associated with handling a recalled battery.
- (c) A battery stewardship organization implementing an approved stewardship plan may bring a civil action against another battery stewardship organization that under performs on its battery collection obligations under this chapter by failing to collect and provide for the end-of-life management of batteries in an amount roughly equivalent to costs imposed on the plaintiff battery stewardship organization by virtue of the failures of the defendants, plus legal fees and expenses.

#### Section 17. ANTITRUST.

Producers and battery stewardship organizations acting on behalf of producers that prepare, submit, and implement a battery stewardship program plan pursuant to this chapter and who are thereby subject to regulation by the department are granted immunity from state laws relating to antitrust, restraint of trade, unfair trade practices, and other regulation of trade and commerce, for the limited purpose of planning, reporting, and operating their battery stewardship program, including:

- (1) The creation, implementation, or management of a battery stewardship organization and any battery stewardship plan regardless of whether it is submitted, denied, or approved;
- (2) The determination of the cost and structure of a battery stewardship plan; and
- (3) The types or quantities of batteries being recycled or otherwise managed pursuant to this chapter.

Section 18. COLLECTION OF BATTERIES INDEPENDENT OF A BATTERY STEWARDSHIP PROGRAM

Nothing in this Act shall prevent or prohibit a person from offering or performing a fee-based, household collection, or a mail back program for covered portable batteries or medium format batteries independently of a battery stewardship program, provided that such person meets the following requirements:

- (1) Such person's services must be performed, and such person's facilities must be operated in compliance with all applicable federal, state, and local laws and requirements, including, but not limited to, all applicable U.S. Department of Transportation regulations, and all applicable provisions of the (name of state) Environmental \_\_\_\_\_\_;
- (2) Such person must make available all batteries collected by such person from its (name of state) customers to a battery stewardship organization implementing a plan approved under this Act; and
- (3) After consolidation of portable or medium format batteries at the person's facilities, the costs for transporting such batteries to a battery stewardship organization's designated sorters or processors shall be at a battery stewardship organization's expense.

Section 19. Prohibition on Disposal

Beginning on January 1, 20XX, no person may dispose of or burn a covered battery in a solid waste disposal facility. Such a battery may be disposed of only by delivery to a collection site or collection event operated under a battery stewardship plan under this Act, unless the battery is regulated as hazardous waste.

Section 20. SEVERABILITY.

If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected.

Section 21. EFFECTIVE DATE.

This Act takes effect upon becoming law.