

**Report to the Joint Standing Committee on
the Environment and Natural Resources**

Annual Product Stewardship Report

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I. Introduction

This is a report on the current implementation of product stewardship laws in the State of Maine, and opportunities for new product stewardship initiatives and improvements to existing programs to help achieve Maine's waste reduction and recycling goals. Product stewardship is a policy approach that can be used by governments and businesses to minimize the negative impacts of products and packaging throughout their lifecycle. Manufacturers (a.k.a. producers) have the greatest ability to affect the life-cycle impacts of products, with distributors, retailers and consumers also having a role. Extended producer responsibility (EPR) is the term used to describe laws that mandate responsibilities for manufacturers in the end-of-life management of their products.

Maine currently has 9 laws related to the end-of-life management of specific consumer products that may be considered to be product stewardship laws. Additionally, in 2009 Maine enacted 38 M.R. S. Chapter 18, *Product Stewardship*, which sets a framework of elements to be included in new product stewardship programs (as well as the requirements for this annual report to the Joint Standing Committee on the Environment and Natural Resources). The Department is recommending statutory changes to the *Product Stewardship* framework law and to 4 of the product-specific laws to improve program performance and/or create efficiencies in implementation:

- **Framework law.** [38 M.R.S. Chapter 18, Maine's Product Stewardship](#) "framework law" delineates required components for new EPR programs at [38 M.R.S. § 1776, Product Stewardship Program Requirements](#). Based on Maine's experience in implementing its great variety of EPR laws, it is now apparent the framework law does not include adequate provisions to ensure implementation of effective programs. The department is proposing additions to the framework law to address these deficiencies.
- **Mercury lamps.** [38 M.R.S. § 1672, Maine's Mercury-added lamps](#) law, requires manufacturers to establish and operate a recycling program for mercury-added lamps (fluorescents and HID) generated by households (see section 4 of the law). This law was enacted prior to the program component requirements in the *Product Stewardship* framework law. The resulting program has consistently underperformed, with recycling rates never exceeding 13%. Revising this law to address all required components for new product stewardship programs will help drive better program performance.
- **Beverage containers.** Maine's Bottle Bill, [38 M.R.S. Chapter 33, Manufacturers, Distributors, and Dealers of Beverage Containers](#), (originally enacted in Title 22 in 1976) establishes responsibilities for the collection and recycling of most plastic, metal and glass beverage containers sold in the state. During 2018, the Legislature's Office of Program Evaluation and Government Accountability (OPEGA) completed a review of this program. The report resulting from this review (<http://legislature.maine.gov/doc/2316>) includes a number of recommendations requiring legislative consideration. These include: comprehensive data reporting to assess program performance and inform policymaking; clarification of BABLO's commingling status and expectations for unredeemed deposits; opportunities to improve program design; and clarification of the intended benefits of commingling and updates to maximize its impact. The

Department is recommending changes to address many of the issues identified in the OPEGA report.

- **Dry-cell mercuric oxide, rechargeable nickel-cadmium, and rechargeable sealed lead acid batteries.** [38 M.R.S. § 2165, Regulation of certain dry-cell batteries](#) (enacted in 1991) requires manufacturers of certain battery types to provide a system for the recycling of their batteries from certain users. The Department recommends that this law be repealed and replaced with an EPR law covering all consumer battery types.
- **Cellular telephones.** [38 M.R.S. § 2143 Maine's Cellular telephone recycling](#) law requires retailers to accept, at no cost, used cell phones at retail locations, and annual reporting by cellular telephone service providers on their recycling efforts in Maine. The Department recommends repeal of the reporting requirement as the data reported reflects only a portion of cell phone recycling so is not useful for assessing program performance.

The department is not recommending statutory changes to these other currently-implemented programs:

- **Electronic waste (e-waste).** [38 M.R.S. § 1610, Maine's Electronic Waste](#) law, was initially enacted in 2003 to manage TVs and other electronics with video displays greater than 4" diagonally from households only. It was subsequently amended to add game consoles and desktop printers and to manage the covered electronics from small businesses (100 or fewer employees) and K-12 schools.
- **Mercury auto-switches.** [38 M.R.S. § 1665-A, Maine's Motor Vehicle Components](#) law, set up a system by-which motor vehicle manufacturers pay for the collection and proper disposal of mercury auto-switches as the vehicles containing them are removed from service.
- **Mercury thermostats.** [38 M.R.S. § 1665-B, Maine's Mercury-added Thermostats](#) law requires that manufacturers that sold mercury-added thermostats into the state pay for the collection and disposal of mercury-added thermostats and to provide a financial incentive with a minimum value of \$5 for the return of each mercury-added thermostat to an established recycling collection point.
- **Architectural paint.** [38 M.R.S. § 2144, Maine's Stewardship Program for Architectural Paint](#) law requires that manufacturers establish and maintain a statewide system to collect, transport, recycle and process post-consumer paint.
- **Plastic bags.** [38 M.R.S. § 1605, Plastic bags: recycling](#) law requires retailers that use plastic bags to have a receptacle within 20 feet of their store entrance to collect used plastic bags and to ensure the bags are collected.

Additionally, the report includes discussion of other products that may warrant future legislative consideration as candidates for new EPR programs, including:

- Packaging
- Pharmaceuticals
- Mattresses
- Carpet
- Solar panels

II. Background

Product stewardship is a policy approach that can be used by governments and businesses to minimize the negative impacts of products throughout their lifecycle. Manufacturers (a.k.a. producers) have the greatest ability to affect the life-cycle impacts of products, with distributors, retailers and consumers also having a role. Extended producer responsibility (EPR) is the term used to describe laws that mandate responsibilities for manufacturers in the end-of-life management of their products.

A. Basic components included in Maine's Framework law

38 M.R.S. § 1776, *Product Stewardship Program Requirements* delineates the basic components for new EPR programs. These include:

- Identification of participating entities, and their roles and responsibilities
- Identification of covered product(s)
- Convenient and adequate collection system, including no fee at collection
- Effective education and outreach
- A sales ban on products from non-compliant manufacturers
- Immunity from antitrust liability for participating manufacturers
- Requirements for the program plan, including management standards and submittal of the plan for review and approval by the Department
- Program performance goals
- Program performance monitoring and assessment
- A financing mechanism to fund “collection, transportation and reuse, recycling or disposition of the relevant product”
- A mechanism for amending the approved program

Based on the Department's experience with implementing EPR programs to date, a program plan designed only to meet the basic requirements in the *Product Stewardship* framework law will not be guaranteed to be successful, i.e., it has a good likelihood of not achieving substantial collection rates. Most notably, the *Product Stewardship* framework law does not include meaningful standards for program performance, any mechanism for the Department to require program improvements or improved program performance, nor any reporting or oversight agency review of annual program budgets.

B. Additional elements of successful EPR programs

Based on experience in Maine and elsewhere, there are certain elements that contribute to an EPR program achieving high rates of diversion from disposal. The following elements are key to achieving high collection rates but currently are not included in Maine's *Product Stewardship* framework law.

- 1) Minimum standards for producers' or stewardship organization staffing, e.g., a minimum 1/2-fulltime equivalent (FTE) to recruit, train and monitor collection sites. For example, the PaintCare program has employed 1-FTE to perform these functions for its program in Maine and Vermont since the inception of their program. This level of staffing has ensured that collection sites receive the support they need to safely and adequately implement the program as confirmed by Department staff field visits.
- 2) Adequate financing for implementation and operations, including funding for regulatory oversight. Payment into the system to finance end-of-life management must be sufficient to cover materials management costs, consumer and collection site education, a minimum 1/2-FTE per stewardship program assigned to implement the program in Maine, on-going program evaluation and reporting, government oversight, and any incentives for collection.
- 3) Minimum program standards for education and outreach to collection sites and to consumers, and on-going evaluation of the effectiveness of education and outreach efforts. No program can be successful without collection site staff and consumers knowing about the program and how it works. Staff turnover at collection sites (often retailers and/or solid waste facilities) is ongoing, as are changes in residents in Maine. Evaluation of education and outreach efforts identifies which initiatives are most effective, and where additional focus is needed. Manufacturers can use the information gained to achieve cost-effective continuous improvement in their programs.
- 4) Measurable, enforceable goals (e.g., recycling rate, consumer awareness, convenient collection), and defined consequences for non-compliance. When manufacturers are responsible for paying for the recycling of collected products, they have a disincentive to collect or to promote the existence or ease of use of a collection system. Minimum standards for locations of collection sites along with a ban on fees at collection are critical to counteracting the financial incentive manufacturers have to discourage consumer participation. Repercussions for insufficient performance or non-participation on the part of manufacturers must be practical to implement. The Department must have the authority to direct program changes if the program fails to make sufficient progress toward achieving program goals.
- 5) Financial incentives for collection site participation and for consumers to return products to collection sites. Successful programs provide an incentive for collection to either consumers or third-party collection agents or both. Collections in Maine's mercury thermostat recycling program increased significantly when the \$5 incentive was implemented, and again when a \$10 incentive was offered for a limited period of time. A similar jump in collections was

achieved in Maine's mercury auto switch recycling program when the \$4 incentive to collection sites was implemented. Maine's Bottle Bill program consistently achieves the highest return rate, with consumers motivated by the deposit/return payment system.

III. Recommendations for changes to existing EPR laws

Based on reviews of Maine's 10 product stewardship laws, the performance of each of the implemented programs and the staffing resources needed to provide adequate oversight, the Department is recommending changes to 5 of these laws.

A. Framework law – [38 M.R.S. chapter 18](#)

As discussed in section II.B above, there are significant deficiencies in the framework law that would allow for approval of a manufacturer program plan which would not result in an effective program. The framework law does not include adequate program performance standards and does not provide the department with the authority to require changes in programs that fail to achieve adequate progress toward the program goals. Legislation to address these deficiencies is included as Appendix A.

B. Mercury lamps – [38 M.R.S. § 1672](#)

Program description: The manufacturer requirements for recycling of mercury-added lamps (fluorescent, neon, black lights, UV, and high intensity discharge - HID) from households are implemented by the National Electrical Manufacturers Association (NEMA) on behalf of the manufacturers. NEMA's program provides free containers, shipping and recycling services to voluntarily participating retail and municipal collection sites. The program also does some outreach to let consumers know about the program.

**Figure 1:
NEMA's Household Mercury-added Lamp Recycling Rates**

	# NEMA collection sites	# Lamps recycled by NEMA	# Lamps available for recycling	NEMA recycling rate
2011	149	6,634	688,000	0.96%
2012	263	50,492	708,889	7.12%
2013	293	97,743	844,576	11.57%
2014	300	109,337	1,042,750	10.49%
2015	307	135,035	1,127,500	12.00%
2016	270*	151,434	1,344,991	11.26%
2017	244*	181,255	1,456,902	12.44%
Total		731,930	7,213,608	10.15%

*Approximately 150 sites sent lamps for recycling in 2016 and 2017

Current performance: Through its product stewardship program, NEMA collected and recycled 181,255 mercury-added lamps out of the estimated 1,456,902 mercury-added lamps available for collection in Maine in 2017. The recycling rate, i.e., the percentage recycled of lamps estimated to be at end of life, has been consistently low for the duration of the program, with an average recycling rate of 10.15%¹.

NEMA's methodology to determine the number of lamps expiring each year utilizes national sales data and lamp life averages for HID, linear fluorescent and compact fluorescent lamps. This information provides a denominator used to calculate an overall recycling rate. NEMA does not provide the actual numerical data for these calculations, which could be used to calculate separate recycling rates for each type of lamp and determine if certain lamps are being recycled at lower rates than others, allowing for more targeted outreach. In addition, NEMA does not provide the Department with the estimated amounts of mercury recovered or available for recovery each year. Lamp mercury content varies significantly, ranging from 0.01 milligrams to 1,000 milligrams.

Lamp companies selling in Maine report data on their mercury per unit and total mercury amounts to the Interstate Mercury Education & Reduction Clearinghouse (IMERC). The IMERC database provides the best available data to estimate lamp mercury content, with ranges for average mercury content in lamps sold by type as well as the percent of lamps that contain a specified range of mercury. For example, 27 percent of fluorescent lamps contain more than 10 but fewer than 50 milligrams of mercury. This data allows the Department to calculate low and high end estimates of how much mercury is recovered. If one assumes that lamps are returned through the NEMA program in the percentages in which they are available in the waste stream, it is also possible to estimate potential mercury recovery. While the Department does not have data on the NEMA lamp collections by lamp type prior to 2015, recent data highlights the significant amount of mercury not being recovered from waste lamps.

Figure 2: Amount of mercury collected by the NEMA program compared to that which was not collected

Year	Low end mercury estimates (lbs.)		High end mercury estimates (lbs.)	
	NEMA collections	Available to collect	NEMA collections	Available to collect
2015	3.03	25.22	10.27	85.55
2016	2.79	24.89	8.40	72.59
2017	3.54	29.11	10.72	88.16
Total	9.36	79.22	29.39	246.30

NEMA has failed to consistently implement the approved plan or take timely actions to improve program performance as proposed in its annual reports. The Department has noted multiple instances of poorly handled program operations, characterized by a lack of communication with participating collection sites and the Department, a lack of effort to make any substantial program improvements in response to Department requests, and a marked lack of resource allocation to ensure the program functions successfully. The lamp law requires that NEMA provide "effective education and outreach, including, but not limited to, point-of-purchase signs and other materials provided to retail establishments without cost." Beginning in 2016, NEMA eliminated their budget allocation for staff, and in 2017 NEMA reduced "Program and Administration" costs by 43%. As the entity that must pay for each bulb recycled, NEMA has an economic disincentive to effectively

¹ If 2011 data is included due to lower collections during program implementation, the average recycling rate is 10.81%

advertise the recycling program. Recovery of mercury-added lamps could be increased through improved public education and outreach and through ensuring convenient collection.

Recommendations: Title 38 § 1672, Maine's *Mercury-added lamp* law, was passed prior to Maine's Product Stewardship Framework law and is, in many ways, inconsistent with the framework. This statute should be revised to better align with the Framework and with more recent, successful product stewardship programs implemented in Maine. Included as Appendix B is legislation that if enacted would accomplish the following:

1. Incorporate the standard definition of “covered entities” rather than limiting participation to households. All references limiting participation to “households” and “residents” would change to “covered entities” and the definition of “covered entities” consistent with that in §1672(1)(E).
2. Establish convenience standards with distribution goals to ensure access to collection sites in rural and urban geographic areas throughout the State.
3. Establish a minimum standard for producer or stewardship organization staffing of ½-FTE to ensure adequate personnel resources to recruit, train and provide on-going in-person technical assistance to collection sites.
4. Strengthen requirements for education and outreach.
5. Establish goals for consumer awareness of key program information.
6. Strengthen data requirements for annual reporting.

C. Consumer batteries – [38 M.R.S. § 2165](#)

In 1991, Maine enacted Title 38 § 2165, *Regulation of certain dry cell batteries*, which requires manufacturers of nickel cadmium and small sealed lead acid batteries to provide recycling services for these batteries at no cost to government agencies, and industrial, communications and medical facilities. In response to this and similar laws enacted by other states in the early 1990's, U.S. battery manufacturers established the Rechargeable Battery Recycling Corporation (RBRC) in 1996. This program, now known as Call2Recycle, offered a free rechargeable battery recycling program to any interested business, government entity and retail location interested in acting as a collection location until mid-2017. Due to increases in “free riders”, i.e., collection of batteries from primary (single-use) and rechargeable battery manufacturers that do not financially support Call2Recycle, Call2Recycle now limits participation in its free rechargeable battery recycling program to municipal collection sites and businesses only as required by state laws. The Call2Recycle program is also incurring new operational costs for redesigning their collection boxes with fire retarding properties and for training of collection site staff in management to prevent fires caused by improper management of lithium and lithium-ion batteries. Note that Maine's current rechargeable battery recycling law does not include lithium or lithium-ion batteries, new chemistries placed into the market subsequent to the law's enactment.

Lithium ion batteries improperly disposed of in the household trash or recycling pose a significant fire risk. The batteries are prone to short circuit and explode if dropped, punctured, or dented, any of which can easily happen during collection or processing at a traditional waste and recycling

facility². This danger has been made evident by the increasing number of Materials Recovery Facility (MRF) fires in recent years attributed to lithium ion batteries, including two at ecomaine's Portland facility in 2017³. Lithium ion battery use is growing at a rate of 1.63 batteries per person, per year⁴. Estimated costs to a MRF from such a fire depends on damages, but some have reported costs ranging from \$8 to \$10 million from a single lithium ion battery fire⁵.

In 2016, Senator Saviello introduced an amendment to LD 1578, *An Act to Update Maine's Solid Waste Management Laws*, to establish an EPR program for small primary and rechargeable batteries of all chemistries. This proposal was developed by the battery industry⁶, and supported by Call2Recycle, Duracell, and other representatives of battery manufacturers. Requiring all manufacturers of covered batteries to participate in a stewardship program would level the playing field by making all suppliers pay their fair share for the recycling of collected batteries. LD 1578 included several other sections affecting other aspects of solid waste management in Maine, and ultimately did not pass the Legislature.

Consumer batteries are a growing problem in Maine's waste stream. The battery industry estimates more than 28 million consumer batteries (single-use and rechargeable) are sold in Maine annually. Maine consumers frequently contact DEP staff asking how they can recycle their batteries. Fires caused by batteries in the waste stream are increasing, and the risk of fires continues to increase as the number of batteries discarded by consumers increases. For these reasons, the Department is proposing the Legislature consider the draft legislation included as Appendix C to establish an expanded product stewardship program for small primary and rechargeable batteries. Along with addressing the elements required in Maine's *Product Stewardship* framework law, this draft includes provisions from the industry-developed model presented in Sen. Saviello's 2016 amendment to LD 1578 as amended through the committee process as well as provisions added to address Maine retailers' concerns with the original proposal. The Department estimates that 0.5 new FTE would be needed to implement the proposed expanded program.

D. Container redemption ("Bottle bill") law – [38 M.R.S. chapter 33](#)

Maine's *Manufacturers, Distributors, and Dealers of Beverage Containers*, a.k.a. the "Bottle Bill" law was enacted in Title 22 in 1976, with the resulting beverage container redemption program initially implemented in 1978 under the purview of the Department of Agriculture. The Legislature transferred responsibility for the program to the Department effective November 1, 2015. The Bottle Bill has resulted in a very successful collection program. Estimated recovery rates fall in the

² See EPA: *Lithium Ion batteries in the solid waste system*. Michael Timpane, RRS.

³ See Kennebec Journal: *Ecomaine fire shows why putting lithium-ion batteries in trash is a really bad idea*. December 21, 2017

⁴ Ibid.

⁵ See *How industry pros deal with fires at MRFs*, December 22, 2016: <https://www.waste360.com/mrfs/how-industry-pros-deal-fires-mrfs> and *Battery fires an 'existential' threat for industry*, April 10, 2018: <https://resource-recycling.com/recycling/2018/04/10/battery-fires-an-existential-threat-for-industry/>

⁶ See *Testimony of Richard Abramowitz, Director of Communications and Government Relations, Duracell Before the Joint Standing Committee on Environment and Natural Resources*, February 17, 2016.

75 to 87% range⁷ which, when compared to the national, overall recycling rate of 34%, is outstanding.

In May 2018, the Office of Program Evaluation and Government Accountability (OPEGA) completed a review of and [report](#) on the Bottle Bill program. The purpose of the review as stated in the report was to assess: “whether the program was operating as intended; the costs and offsets of the program for both the State and the initiators of deposit (IoDs); the degree to which risks of non-compliance, fraud, and abuse were mitigated in the program; and how the program compared to the management of beverage containers in other states.”

The OPEGA report includes several recommendations for departmental and Legislative consideration to improve program implementation. In response to the recommendation that the department can implement without legislative action (Recommendation #3), the department has refined and documented its procedures for removing non-compliant products from sale and completed work with Maine Revenue Services (MRS) to better integrate the agencies’ responses to instances of non-compliance. Additionally, in 2018 the Department focused on other initiatives to improve administrative processes, including the continued development and implementation of an on-line portal for manufacturers and distributors to register the labels on all products subject to the law. The information collected through product registrations is critical to apportioning responsibilities for recycling as well as handling fee and deposits payments to redemption centers.

Recommendation #1 in the OPEGA report provides the Department with responsibility for initiating legislation to require data reporting by all IoDs and by third party pick-up agents. Quality data can help improve effectiveness and efficiency in program administration, allow accurate quantitative assessment of program outcomes, and inform policymakers when making decisions about the program. Appendix D contains proposed legislation which would require IoDs to report the number of non-refillable beverage containers sold in the state and the number of non-refillable beverage containers returned by redemption value. Along with proposing new reporting requirements, this draft legislation also seeks to respond to additional issues noted in the OPEGA report and by the department during its 3 years of program oversight as follows:

- Reporting by third party pick-up agents on redemptions by IoD so that the department and MRS can verify self-reported redemptions by IoDs (see OPEGA Recommendation #1). This issue may be addressed by enacting a new subparagraph, § 3113 sub-6, as shown in Appendix D.
- The Bureau of Alcoholic Beverages and Lottery Operations (BABLO) is the IoD for all spirits sold in Maine, efficiently handling all spirits containers collected by redemption centers as a commingled group. However, the statutory criteria for approval inappropriately precludes BABLO from being categorized as a qualified commingling group (see OPEGA Recommendation #4). This issue may be addressed by enactment of the changes proposed in the last sentence of paragraph § 3106.7(C) as shown in Appendix D.

⁷ Office of Program Evaluation and Government Accountability Report No. SR-BOTTLE -17, *Maine’s Beverage Container Redemption Program—Lack of Data Hinders Evaluation of Program and Alternatives; Program Design Not Fully Aligned with Intended Goals; Compliance, Program Administration, and Commingling Issues Noted*, May 2018 (<http://legislature.maine.gov/doc/2316>)

- OPEGA identified several aspects of the law that impact redemption centers and/or retailers and that are outdated or of limited relevance to current program operations (see OPEGA Recommendation #5).

When the Bottle Bill law was enacted, it required all beverage retailers (a.k.a. “dealers”) to allow customers to redeem beverage containers of the brands, types and sizes sold by that retailer. Since that time, a network of redemption centers independent of retailers has developed across the state to manage all brands, types and sizes of containers. To reflect this reality and prevent circumvention of the limit to the number of redemption centers established in Title 38 § 3113 sub- 3, the Department is proposing to eliminate the required redemption responsibility for retailers with less than 5000 square feet of retail space as well as the limitations on the kind, size and brand of containers that must be accepted by retailers with more than 5000 square feet of retail space, and also to eliminate the exemption for food establishments from the limit on the number of redemption centers (which will be moot if the 5000 square foot exemption is enacted) [see proposed amendments to § 3106 sub- 1 and sub- 2, and § 3113(4)(B) respectively, as shown in Appendix D].

Removal of provisions of the law which indicate redemption centers must have agreements to provide redemption services for dealers and only need accept containers of the kind, size and brand sold by those dealers eliminates the administrative burden on redemption centers and retailers of maintaining written agreements. It also addresses the issue of limitations on where consumers can redeem containers by eliminating these limitations. The end result of enacting these proposed changes will be that establishments that sell beverages but have less than 5000 square feet of retail space will not be required to redeem containers. Additionally, stand-alone redemption centers and dealers with 5000 or more square feet of retail space without an agreement with a stand-alone redemption center within 1 mile will be required to redeem all beverage containers included in the deposit/redemption program.

- The OPEGA report identifies on-going concerns by Bottle Bill program participants that the Department does not have a formal role or authority to impose consequences on redemption centers that routinely present bags holding fewer than the required number of containers to pick-up agents. In response to OPEGA’s Recommendation #7, included in the proposed legislation in Appendix D, the Department is proposing an additional subsection in Title 38 § 3109 that adds an affirmative responsibility for redemption centers to package containers for pick up in a manner that ensures accurate unit counts of eligible containers. In addition, the Department is proposing to change the criteria in Title 38 § 3113 sub-2 from criteria for rule-making to criteria for licensing. These changes will enable the Department to implement standard compliance and enforcement procedures to check unit counts of containers readied for pick-up by redemption centers, and to refuse to renew the license of a redemption center based on its record of compliance.
- OPEGA’s Recommendation #8 describes how the current commingling provisions in statute have become too restrictive to meet their original intent of minimizing the number of sorts that must be implemented by redemption centers. Due to the explosion of sizes and

container types for beverages other than soda, beer, wine, and water, redemption centers must employ significant labor and maintain large storage areas to properly sort and store containers that are not included in commingling groups. To fully realize the efficiency benefits of commingling, the department recommends that the Legislature provide all IoDs with the opportunity to become part of a “catch-all” commingling group administered by a third party as delineated in proposed § 3107 sub-5 included in Appendix D. The third-party program could allow redemption centers to commingle containers by material type and allow assignment of responsibility by share of marketed weight, thus eliminating scores of sorts. In this system, manufacturers would pay redemption centers for an assigned portion of that container type proportional to their share of sales based on container weights. Such a system will significantly reduce redemption center costs for labor, as well as costs associated with the delay in receiving deposit reimbursements from the IoDs that results from the need to store containers of non-commingled brands for long lengths of time after paying out the deposits to consumers.

It is important to note that under the current law, only IoDs that do not participate in a commingling group are required to remit unclaimed deposits to the State. Recommendation #4 includes the suggestion that the Legislature consider amending the statute “to specify how unredeemed deposit funds should be processed and used by the State.” This recommendation will become moot if the recommendation to create a “catch-all” commingling group is enacted and all IoDs opt to participate in a commingling group.

- Additionally, this draft legislation includes amendments to consolidate the rule-making provisions, to integrate the redemption center licensing fees into Title 38 subchapter 2, *Maine Environmental Protection Fund*, and to set the licensing fee at \$100 consistent with the standards Title 38 § 352, *Fees* (see Section 1 of the proposed legislation in Appendix D). The current annual licensing fee is \$50, which is not adequate to cover costs incurred by the department for application review and processing.

The department also recommends that the Legislature review Recommendation #6 in the OPEGA report to determine how the Legislature and the department should proceed to address the issues of program scope, deposit value, performance measurement, final disposition of redeemed materials and maximizing commodity values as identified by OPEGA.

E. Cell phones - [38 M.R.S. § 2143](#)

Maine’s cellular telephone recycling law (38 M.R.S. § 2143) requires retailers to accept, at no cost, used cell phones at retail locations, and annual reporting by cellular telephone service providers (i.e., carriers including Verizon, T-Mobile, USCellular, AT&T) on their recycling efforts in Maine. The Department recommends repeal of the reporting requirement as it does not provide useful data (see Appendix E for proposed statutory change). Many consumers return cell phones to entities that pay for them, so the data from the service providers cannot be used to assess program performance or determine a recycling rate. Also, each of the carriers provides information to their customers on the recycling programs they offer, often in support of social welfare causes. This information is readily available on their web sites.

IV. Candidate products for new EPR programs

Maine's Product Stewardship Framework law identifies the following criteria for evaluating product stewardship as a mechanism to facilitate recycling:

- A. The product or product category is found to contain toxics that pose the risk of an adverse impact to the environment or public health and safety;
- B. A product stewardship program for the product will increase the recovery of materials for reuse and recycling;
- C. A product stewardship program will reduce the costs of waste management to local governments and taxpayers;
- D. There is success in collecting and processing similar products in programs in other states or countries; and
- E. Existing voluntary product stewardship programs for the product in the State are not effective in achieving the policy of this chapter.

Recycling is defined as “the transforming or remanufacturing of an unwanted product or the unwanted product's components and by-products into usable or marketable materials. ‘Recycling’ does not include landfill disposal, incineration or energy recovery or energy generation by means of combusting unwanted products, components and by-products with or without other waste.”

Included here are several products that may be good candidates for EPR programs in Maine in the future. Some of these are products that previously have been the subject of some discussion in Maine, and EPR programs have been established for each of these products in other jurisdictions.

A. Product stewardship for packaging

A large portion of the current municipal waste stream is comprised of various types of consumer packaging. Much of it is not recyclable. Packaging that is readily recyclable has historically been managed to some extent through Maine's existing recycling system, which is a combination of public and private enterprises. However, shifts in international markets for recyclables during 2018 have shown the vulnerability of these programs to commodity price changes and the need for investment in recycling infrastructure. Stable funding provided by extended producer responsibility can prevent high municipal costs and diversion of these resources to disposal when material values drop, as occurred during 2018.⁸ An EPR program for packaging also can provide incentives for producers to increase the recyclability of their packaging and to use packaging that is more valuable at end of

⁸ The average value of a ton of single stream recycling in Maine, as tracked by the Maine Resource Recovery Association, fluctuated between a value of \$20/ton to a cost of \$30/ton between 2007 and 2017 before dropping to cost of more than \$100/ton in 2018.

life, galvanize investment in Maine’s recycling infrastructure, and relieve municipalities of much of the financial burden of dealing with this waste stream.

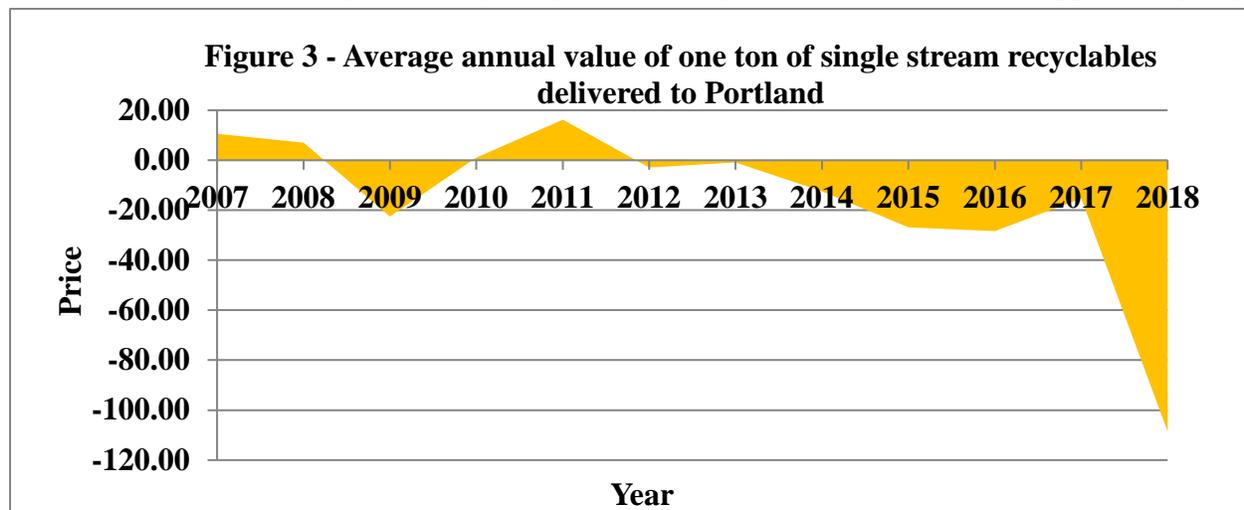
1) Packaging meets four candidate criteria for stewardship program

Product stewardship for packaging meets four of the five criteria outlined in the Framework Law – all but criteria A, products containing toxics.⁹

Criteria B: Increase the recovery of materials. Alleviating economic pressure on municipalities would prevent moves away from recycling caused by market downturns like that experienced during 2018. In addition, the incentives provided by product stewardship can help change the make-up of this stream. Currently, much packaging is not readily recyclable and therefore is destined for disposal. Examples of packages that are not practical to recycle include plastic pouches, multilayered materials, and packages made from commonly recycled materials like PET that can’t be processed by the recycling system because of issues with their wrappers or shapes and sizes¹⁰. To support the development of a sustainable “circular economy”, there is a need to design packaging with recycling in mind.¹¹

Criteria C: Reduce the costs of waste management to local governments and taxpayers.

Packaging is a large material stream, only part of which is readily recyclable. Packaging that is not readily recyclable is being disposed of as municipal solid waste. The portion of the stream that is readily recyclable can also be problematic. Although recycling of some packaging streams has long been promoted as a way to lessen the burden of waste management costs on municipalities or even as a money maker, recycling costs for packaging rose sharply in 2018 when China stopped accepting



⁹ Nineteen states, including Maine, have laws governing toxics in packaging. For more information, see the Toxics in Packaging Clearinghouse website at <https://toxicsinpackaging.org/> and [Title 32 Chapter 26-A, Reduction of Toxics in Packaging](#).

¹⁰ “APR Design Guide for Plastics Recyclability”, The Association of Plastics Recyclers, <https://plasticsrecycling.org/apr-design-guide/apr-design-guide-home>

¹¹ *The New Plastics Economy – Catalysing Action*, Ellen MacArthur Foundation, 2017 https://www.ellenmacarthurfoundation.org/assets/downloads/New-Plastics-Economy_Catalysing-Action_13-1-17.pdf

bales of plastic and fiber recyclables due to contamination. Municipal transfer stations and the companies that manage these materials found themselves unable to move some materials or only able to do so at a cost. Single-stream programs increased their fees,¹² while source separated programs stopped recycling certain material types. The lack of data on packaging generation and municipal recycling and disposal costs makes price estimates of the amount of municipal resources spent handling packaging difficult to come by. That said, triangulating a variety of imperfect estimates can provide a rough idea of the amount of money spent.

- Using Maine tons of municipal solid waste generated in 2017¹³ and applying percentages of packaging materials found in the University of Maine's 2011 study¹⁴ characterizing the makeup of Maine municipal solid waste provides an estimate of the amount of packaging disposed of as waste in 2017. This method yields an estimated 177,000 tons of material. If Maine municipalities spent an average of \$90/ton¹⁵ to transport and dispose of this material during 2018, they spent approximately \$16 million. This \$16 million estimate understates the actual cost to municipalities of managing packaging because it does not include the cost of separated recyclables, i.e., it is only the cost of managing packaging material that is thrown out with household trash.
- Using statistics on average per capita generation of packaging from Europe¹⁶ and subtracting the amount of material handled through Maine's Bottle Bill¹⁷ provides an estimate of approximately 194,000 tons of packaging handled through Maine municipalities annually. Once again, assuming Maine municipalities paid \$90/ton to handle packaging either as trash or as recycling

¹² Data for Figure 3 courtesy of Victor Horton, Maine Resource Recovery Association, October 29, 2018, "Single stream spot market pricing paid in Maine delivered to Portland; for contract pricing add \$2-5/ton"

¹³ Maine Department of Environmental Protection, "Maine Solid Waste Generation and Disposal Capacity Report for Calendar Year 2017", January 2019, shows 721,646 tons of municipal solid waste generate in Maine in 2017.

¹⁴ Criner, George; Blackmer, Travis; "2011 Maine Residential Waste Characterization Study School of Economics Staff Paper #601", available here: <https://umaine.edu/wp-content/uploads/sites/2/2017/04/2011-Maine-Residential-Waste-Characterization-Study.pdf>, studied samples of municipal solid waste in Maine and identified the components, by material type. Using the total percentage of plastics other than "durable plastic items"; the percentages of "tin/steel containers", "redeemable aluminum beverage containers", "non-redeemable aluminum beverage containers" in the metals category; the total percentage of glass other than the "remainder/composite glass" and "flat glass"; and the percentages of "uncoated corrugated cardboard/kraft paper" and "remainder/composite paper", and half of the percentage of "other recyclable" paper, we obtained an estimate of the percentage of Maine's municipal waste stream composed of packaging waste of 24.5%.

¹⁵ There is not good data to support this number; tonnages of packaging resulting from each method have been provided so that municipalities can easily adjust estimates to reflect their costs. The Maine Department of Environmental Protection, "Maine Solid Waste Generation and Disposal Capacity Report for Calendar Year 2017", January 2019, reports that tipping fees for municipal solid waste were between \$40 and \$85 during 2017, which does not include the cost of transportation. Figure 3 of this report shows the average cost of single stream recycling delivered to Portland at over \$100/ton in 2018.

¹⁶ Eurostat, "Packaging Waste Statistics", https://ec.europa.eu/eurostat/statistics-explained/index.php/Packaging_waste_statistics show the average European generated 166.3 kg or 366.6 pounds of packaging in 2015.

¹⁷ 51,808 tons of material or 77.3 pounds per person were recycled through Maine's Bottle Bill program in 2017, which would leave approximately 290 pounds of packaging per person handled through the municipal waste stream.

in 2018, the cost to Maine municipalities of managing packaging in 2018 was approximately \$17.5 million.

- Using estimated costs in the Canadian province of Saskatchewan (which has 1.17 million people in 700 municipalities, 600 of which have fewer than 1000 residents), where the cost of handling packaging is around \$14.5 million, annually¹⁸ and prorating this cost for a population of 1.34 million yields an annual municipal cost of \$16.6 million.

Criteria D: There has been success in other states or countries. Many European Union countries and five of Canada’s provinces manage packaging through product stewardship programs. Years of successful implementation, per capita results, and municipal savings for each of the Canadian stewardship programs are presented below. Movement toward more sustainable packaging is hard to quantify based on available information, but there is an on-going pilot program in British Columbia testing the recyclability of flexible packaging collected at drop-off locations and there have been significant decreases in the use of plastic bags in Manitoba since the initiation of a government effort that has been facilitated by the Manitoba packaging stewardship organization.

Figure 4
Per capita results of Canada’s five EPR for Packaging and Printed Paper Programs

PROVINCE	PROGRAM DURATION	PER CAPITA RESULTS	MUNI. SAVINGS	BOTTLE BILL MATERIAL*
Ontario	15 years	65 kg <i>recycled</i> (2016) **	Reimbursed 50% of recycling costs	Alcohol
Manitoba	9 years	71 kg collected (2017)	Reimbursed 80% of recycling costs	Beer
British Columbia	7 years	38 kg collected (2017)	Municipalities don’t recycle	Non-milk
Quebec	5 years	93 kg collected (2017)	Reimbursed 100% of recycling costs	Beer and carbonated beverages
Saskatchewan	3 years	49 kg collected (2017)	Reimbursed 75% of recycling costs	Non-milk, non-nutritional supplements

*Bottle bill material is not collected through these programs so the breadth of a province’s bottle bill influences the amount of material available for collection.

** Ontario’s program reports on kg recycled per person, as opposed to kg collected; more material is collected than can be recycled. Ontario’s most recent data is from 2016, not 2017.

Criteria E: Voluntary efforts are insufficient. Industry efforts to assist with the management of packaging include the Closed Loop Fund and The Recycling Partnership, which invest in recycling infrastructure and education at the national level. The city of Portland received a grant of \$175,000 from The Recycling Partnership to help pay for new recycling carts in 2017.¹⁹ The department is unaware of any other direct contributions by these organizations to recycling programs in Maine.

¹⁸ Steven Dribnenki, Saskatchewan Recycling, November 28, 2018: Saskatchewan recently studied program costs and updated payments to municipalities, increasing them to \$8.7 million, which covers approximately 60% of the cost of a “reasonably run” program.

¹⁹ Harry, David, *The Forecaster*, “Portland set to roll out covered recycling carts”, July 31, 2017, <http://www.theforecaster.net/portland-set-to-roll-out-covered-recycling-carts/>

The Department estimates that 1 new FTE would be needed at the Department to oversee implementation of the program.

2) Key considerations in design of a packaging stewardship program

Maine's *Product Stewardship* framework law provides minimum requirements for new product stewardship programs. Review of the Canadian provinces' EPR programs for packaging reveals additional key aspects that should be considered when formulating legislation to establish a new packaging stewardship program. These include a) whether manufacturers are given complete financial and operational responsibility for establishing and maintaining recycling systems (full manufacturer responsibility) or share that responsibility with municipalities, and b) whether the enabling legislation includes incentives for the use of recyclable packaging and/or disincentives for the use of non-recyclable packaging.

a) Division of responsibilities between manufacturers and municipalities

Whether there is a division of responsibilities between municipalities and producers in packaging stewardship programs provides incentives for effective and efficient collection and recycling, streamlining of operations, and the free market economics of the recycling industry. Canada's existing product stewardship laws governing packaging differ in the level of financial and operational responsibility given to each group. For example, British Columbia assigns manufacturers full responsibility while Province Quebec implements a program of shared responsibility. If responsibilities are shared, legislation establishing the EPR system must delineate the division of financial and operational responsibilities.

Proponents of a system in which a producer organization has full financial and operational responsibility for recycling point to the opportunity for efficiencies that such a system provides. If one entity manages the recycling of all packaging (including control of the collection system), the collection system and educational programs can be standardized; fewer, larger contracts can be written to reduce administrative costs; and the single entity managing recycling has much more control over market price than do a larger number of smaller entities²⁰. If managed well, the streamlining afforded by full producer responsibility for operations could lead to lower system costs, though the limited available data from North America does not show this to be the case.²¹

²⁰ Recycle BC runs the only North American packaging stewardship program that gives producers responsibility for recycling operations. A common comment from local government stakeholders during the revision of Recycle BC's stewardship plan is that incentive payments made by the stewardship organization to collectors are insufficient. For instance, the City of Vancouver receives an incentive of \$66 per ton for recycling collected for Recycle BC at its depots, while Recycle BC's own cost study pegs the per ton cost of recycling through a depot at \$301 per ton. Because Recycle BC is the only buyer, it has a lot of power to influence the price. Data from, Recycle BC, "Consultation Report on Revised Packaging and Paper Product Extended Producer Responsibility Plan", October 2018.

²¹ Recycle BC performed a cost comparison of pre-program costs (2012 data) and costs 5 years into the program (2017). This cost study uses a limited sample size but is the best data available to compare costs under a free-market vs. stewardship run recycling system. Results show that the range of kilograms of packaging diverted for recycling per household has shifted downward for both curbside and multifamily collections (from 48-270kg/household to 42-200kg/household using curbside and from 73-136 kg/household to 67-91kg/household using multifamily collection);

Proponents of a shared responsibility system cite the advantages of maintaining diverse recycling systems as the maintenance of free market forces in the industry and the avoidance of stranded investments in the existing system. Competition in a free market correctly sets prices, leads to innovation, and drives efficiency and effectiveness elsewhere in the economy. Distributed end-of-life management of post-consumer packaging also ensures that, once recycled, these resources are available at market prices rather than having the price controlled by a single entity.

Maintaining municipal control of recycling also minimizes disruption of current waste management, allowing municipalities to continue collecting and sorting material as they see fit and avoiding the stranding of investments and excessive consolidation in the recycling industry that may be experienced if operational responsibility for recycling of packaging was removed from municipal MSW management systems. This type of system design dovetails with Maine law that assigns each municipality responsibility for providing for management of MSW generated within the municipality (see [38 M.R.S. § 1305.1](#)). However, in such a shared responsibility system, municipalities and their recycling service providers must be willing to share information with producers to ensure transparency in costs and accountability for ensuring materials are recycled.

Division of financial responsibilities: incentives for *efficient* collection and recycling.

Careful division of financial responsibility in legislative design can promote efficient collection and recycling systems. If producers are financially responsible for the recycling of packaging yet municipalities have operational control of their recycling programs (i.e., producers pay municipalities for their costs of recycling packaging), system requirements should include incentives for municipalities to operate efficiently. Existing Canadian programs in which municipalities have operational control over recycling do this by tying municipal costs to producer costs, defining what constitutes an efficient program, and providing municipalities with extensive producer assistance. For example, defining reimbursable municipal costs as the average regional cost of municipal recycling rather than each municipality's actual costs results in municipalities with higher-than-average costs bearing the cost of their premium operations. Conversely, municipalities with lower-than-average costs receive a premium for their efficient operations. This incentivizes cost-efficient municipal operations and dis-incentivizes premium operations.

The legislative design of a shared responsibility system can also promote efficiency by giving producers the ability to lower their program costs by managing their own recycling plans. Producers want, and should have, the opportunity to provide new or improved recycling options for their packaging (some producers already provide for recycling of their packaging).²²

the change in quantity collected using depots is not reported. Cost data shows a 6% increase in cost per household for curbside collection, a 11% increase in cost per household for multifamily collection, and a 79% increase in cost per ton at depots. Cost savings were realized in the areas of education and administration (39% and 62%, respectively), but these costs make up a much lower percentage of total program costs than do the costs of collection (\$1.50/household on education, \$1.60/household on administration, \$43/household on curbside collection, \$23/household on multifamily collection, and \$301/ton on depot collection). Data from, Recycle BC "Packaging and Paper Product Collection Costs Five Year Cost Study Refresh", June 8, 2018.

²² Letter to Elena Bertocci, Maine DEP, from Calla Farna, Vice President Corporate Affairs, Canadian Stewardship Services Alliance, December 11, 2018.

Legislation can support the creation of new, and maintenance of current, producer recycling operations by providing producers the ability to offset their financial responsibility for material they place on the market by collecting and recycling that material through their own programs. For instance, every pound of plastic bags a producer collects may offset a pound of plastic bags it marketed and the amount the producer would pay into the system. If a producer collects as many pounds of plastic bags as it markets, it would not need to pay into the system. With this design, if a material is not being handled efficiently by municipal recycling programs, producers have the incentive and the ability to create an alternative management system.

Division of operational responsibilities: incentives for *effective* collection and recycling.

In systems where municipalities are operationally responsible for recycling, when a municipality recycles more, it pays less for trash disposal. When combined with a system that incentivizes municipalities to recycle better as described above, municipalities have strong incentives to recycle as much material as possible, as well as possible.²³ Conversely, in systems where a producer or group of producers operate the only collection system, they pay more as their collection increases (other than when the material is worth more than the cost of processing and transportation).²⁴ In this case, the responsible entity (producer) has an incentive to collect as little recycling as is allowable under the law and to recycle only to the extent the law requires. A legislative design that maintains municipal control over municipal recycling operations incentivizes effective collection for recycling.

b) Incentives and disincentives to support the use of readily-recyclable packaging

Legislation establishing EPR for packaging should include incentives that promote the design and use of packaging that can be efficiently collected and reused or recycled. Whether the legislation requires full producer responsibility or establishes a shared responsibility system, it can incentivize the use of readily recyclable packaging by calibrating financial responsibility based on the cost to recycle the packaging material as well as the amount of packaging a producer sells into Maine. Producer costs for packaging that has a positive recycling value (taking into account the cost of processing and transportation) could be limited to simply providing support for consumer recycling education.

A shared responsibility system can be designed to provide producers with additional incentives to create new opportunities for recycling materials that currently are not readily recyclable. One

²³ Recycle BC runs the only North American packaging stewardship program that gives producers responsibility for recycling operations. The Recycle BC program is criticized for its extensive limitations on eligibility for participation. Local governments and First Nations note that collection could be expanded if Recycle BC would loosen population and process restrictions that prevent many smaller, more rural communities from participating. Complaints include an inability to drop off recycling even if a community that is not served by Recycle BC is willing to pay a hauler to bring its material to an existing Recycle BC depot. Recycle BC, “Consultation Report on Revised Packaging and Paper Product Extended Producer Responsibility Plan”, October 2018.

²⁴ Recycle BC runs the only North American packaging stewardship program that gives producers responsibility for recycling operations. According to page 9 of its 2018 Packaging and Paper Product Extended Producer Responsibility Plan, “Recycle BC offers financial incentives to qualified collectors. These incentives are designed to provide collectors near-by with sufficient incentive to collect the amount of PPP required by Recycle BC to meet its targets.” “Packaging and Paper Product Extended Producer Responsibility Plan”, Recycle BC, October 2018 revision. As could be anticipated, considering the incentives and this statement, the program’s recovery rate dropped in 2017 after passing the mandated minimum in 2016.

mechanism to accomplish this is to require producers to reimburse municipalities their costs of disposal for packaging materials that are not readily recyclable in Maine. This eliminates any incentive to switch recyclable materials packaging, which may carry a cost in the system, to non-recyclable. It also creates a financial incentive for producers to develop recycling processes and/or infrastructure to increase the types of packaging that are readily recyclable. For example, although systems do not exist today for recycling multi-laminate pouches, producers may help support the development of new recycling processes and the subsequent establishment of nearby infrastructure to make multi-laminate packaging readily recyclable in Maine.

B. Pharmaceuticals

A pharmaceutical product stewardship program meets four of the five criteria listed in the framework law – all but the criterion of increasing recovery of material for reuse and recycling. The most compelling of the criterion as relates to pharmaceuticals is the increasing evidence that, when not managed properly, they adversely impact the environment and public health and safety.

The public health argument for proper disposal of pharmaceuticals is strong. A 2015 study published in the U.S. National Library of Medicine, National Institutes of Health estimates that 2 of 3 prescriptions dispensed go unused.²⁵ Unused medications may be left sitting in medicine cabinets, where they contribute to accidental poisonings of children²⁶ and are available to potential abusers – in 2013, 18% of Maine high school students reported having misused a prescription drug during their lifetime and more than 1 in 3 Maine parents felt their teen would be able to access prescription medications at home without parental knowledge.²⁷

Common disposal options like sending unused meds to landfills or through waste water treatment systems result in the release of these chemicals into the environment. A study of Seattle area seafood performed during the spring of 2018 detected opiates, antibiotics, anti-depressants, chemotherapy drugs and heart medications. Because shellfish lack the ability to metabolize these chemicals, they can be passed on to humans that consume them.²⁸ In addition, an Associated Press investigation found pharmaceuticals including antibiotics, anti-convulsants, mood stabilizers and sex

²⁵ Law A.V., Sakharkar P., Zargarzadeh A., Tai B.W., Hess K., Hata M., Mireles R., Ha C., Park T.J. (2014, Oct 17). “Taking stock of medication wastage: Unused medications in the U.S.” U.S. National Library of Medicine, National Institutes of Health. <https://calpsc.org/mobius/cpsc-content/uploads/2015/08/Study-Taking-Stock-of-Medication-Wastage-Unused-Medicines-in-US-Households-2015.pdf>

²⁶ Centers for Disease Control and Prevention, “Protect the Ones You Love: Childhood Injuries are Preventable”, <https://www.cdc.gov/safecchild/poisoning/index.html>

²⁷ Diomedes, Tim. Maine Department of Health and Human Services. “SEOW Special Report: Heroin, Opioids, and Other Drugs in Maine”. October 2015.

https://www.maine.gov/dhhs/samhs/osa/data/cesn/Heroin_Opioids_and_Other_Drugs_in_Maine_SEOW_Report.pdf

²⁸ NPR. “Traces of opioids found in Seattle area mussels”, May 25, 2018.

hormones in the drinking water supplies of at least 41 million Americans.²⁹ It is known that pharmaceuticals in the environment are having toxic effects on marine animals³⁰ and fish.³¹

The case for pharmaceutical takeback has been strengthened by the connection between prescription opioids and opioid abuse. This link led the legislature to enact, “An Act to Prevent Opiate Abuse by Strengthening the Controlled Substances Prescription Monitoring Program” in March of 2017. Since 2016, four states have enacted product stewardship laws for pharmaceuticals: Massachusetts and Vermont included extended producer responsibility requirements for pharmaceutical takeback as part of comprehensive legislation for the prevention of opioid abuse, while New York and Washington passed stand-alone product stewardship laws to fight prescription drug abuse.

In response to the opioid epidemic, a number of Maine entities have begun pharmaceutical takeback programs. Although these appear to be doing a good job and are free,³² collection sites and events are limited, as is money to cover the costs of education, outreach, and collection. Establishing an EPR law for pharmaceuticals could guarantee on-going funding and provide for safe, convenient collection from consumers, extended care facilities, and medical service providers.

C. Mattresses

Mattresses meet all 5 criteria established in Maine’s *Product Stewardship* framework law for evaluating products to determine whether mandated product stewardship will facilitate recycling (see criteria above and at [38 M.R.S. § 1772.2](#)).

First, many mattresses contain organohalogen flame retardants (OFRs), including brominated flame retardants (BFRs). In September 2017, the Consumer Products Safety Commission (CPSC) issued a guidance document recommending producers to stop manufacturing mattresses containing OFRs and warning consumers to avoid products containing OFRs,³³ due to their potential toxicity. Maine law ([38 M.R.S. § 1609](#)) banned the sale of mattresses and mattress pads made with the “deca” mixture of polybrominated diphenyl ethers beginning January 1, 2008. Given these and similar governmental actions, the risk to public health and the environment from flame retardants in mattresses should decrease over time.

²⁹ Granite State Analytical Services, June 2018 Newsletter “Pharmaceuticals in Drinking Water”

³⁰ Hernando M.D., Mezcuca M., Fernandez-Alba A.R., Barcelo D. (2006). "Environmental risk assessment of pharmaceutical residues in wastewater effluents, surface waters and sediments." *Talanta* 69: 334-342.

³¹ Corcoran, J., Winter, M.J. and Tyler, C.R. (2010). "Pharmaceuticals in the aquatic environment: A critical review of the evidence for health effects in fish." *Critical Reviews in Toxicology* 40,4: 287-304

³² Current efforts include 59 permanent sites for collection from households only (medical and residential care facilities cannot utilize the current system). The permanent collection sites are located at police offices or sheriff’s stations; they offer continuous collection then store pharmaceuticals until they can access free disposal provided by the USDEA National Takeback Days. Although Maine has just 0.4% of the country’s population, Maine collected 3% by weight of total drugs turned in during the most recent national one-day USDEA event, including unwanted pharmaceuticals collected at 157 temporary collection sites.

³³ *Guidance Document on Hazardous Additive, Non-Polymeric Organohalogen Flame Retardants in Certain Consumer Products*, Consumer Product Safety Commission, Federal Register / Vol. 82, No. 187 / Thursday, September 28, 2017 / Notices, (available at <https://www.govinfo.gov/content/pkg/FR-2017-09-28/pdf/2017-20733.pdf>)

Mattress recycling currently occurs in Maine on an ad hoc basis at a few solid waste facilities. In these cases, facility staff deconstruct mattresses into their wood, metal, foam and fabric components, then recycle the metal, manage the wood with other clean wood wastes, and send the foam and fabric for disposal. Although there are a few businesses that dismantle mattresses in southern New England, there are no such businesses in Maine.

Currently in Maine the vast majority of discarded mattresses are sent for disposal. The costs to municipalities for handling and transportation are relatively high compared to other waste streams due to their bulk; municipalities also bear the cost of disposal fees. Mattresses cause operational challenges for landfills in that they do not compress and have a tendency to “float” to the surface, potentially compromising cover systems.

Connecticut, Rhode Island and California have all enacted EPR laws for mattresses. The mattress recycling programs in these three states are administered by an industry-led nonprofit, the Mattress Recycling Council (MRC), with state government oversight. The program is funded by a visible fee that is levied on new mattress purchases, which is established based upon population distribution, geographic considerations, and other factors. MRC recently announced it has recycled more than 3 million mattresses in California. During the most recent fiscal year (July 1, 2017 – June 30, 2018), MRC recycled more than 180,000 mattresses, bring the total recycled in Connecticut since the program began in 2015 to almost ½ million. In its second year of operation in Rhode Island, the MRC program (known as “Bye Bye Mattress”) collected 83,762 mattresses and recycled 1,645 tons of material.³⁴

There are no existing voluntary stewardship programs for mattresses in Maine.

The Connecticut, Rhode Island, and California EPR programs all have significantly increased the diversion of mattresses from disposal to recycling. However, the fee per unit (a mattress and a box spring are 2 separate units) at sale in Rhode Island jumped from \$11 to \$16 within 2 years of program implementation (currently the fee is \$9 in Connecticut and \$10.50 in California). Given Maine’s geographic size, low population, and lack of businesses to deconstruct mattresses, enacting a law with the same financing mechanism likely would result in a per unit fee at sale even higher than the \$16 fee in Rhode Island. When the Legislature considered the bill to establish an EPR program for architectural paint, concerns were raised that a fee at sale may drive consumers to purchase products outside of Maine rather than in Maine. The higher the fee at sale, the more likely this consumer reaction may happen. Additionally, financing an EPR program fully on revenues collected from a fee-at-sale provides little incentive for manufacturers to design their products for recycling. Given these dynamics, an EPR system for mattresses funded at least partially through cost internalization may be most appropriate for Maine.

D. Carpet

Carpet meets four of the five criteria listed in the framework law for identifying stewardship candidate products – all but the criterion of toxics in the product. However, it is worth noting that

³⁴ This data and additional information on the 3 state programs are available through the Mattress Recycling Council’s website at <https://mattressrecyclingcouncil.org/programs/>.

although carpets generally do not meet the toxin criterion, research shows that some carpets may contain brominated flame retardants,³⁵ which pose health concerns related to endocrine disruption, immunotoxicity, reproductive toxicity, and neurotoxicity.³⁶

In 2002, the carpet industry, several non-governmental organizations (NGOs), the EPA, and 21 states including Maine signed onto a ten-year Memorandum of Understanding for Carpet Stewardship (“MOU”) intended to support recycling of end-of-life carpet.³⁷ This MOU resulted in the establishment of the Carpet America Recovery Effort (CARE), which was formed to implement the MOU. Barriers to the implementation of a voluntary, market-driven carpet recycling program included a shrinking market share for the carpet industry in the flooring market and decreasing value of carpet due to substitution of lower-value materials such as PET (Polyethylene Terephthalate) for higher-value materials such as nylon.

The 2011 Product Stewardship report observed that “industry has not achieved the diversion and recycling goals set by the MOU,” and although a stewardship program was not proposed at that time, the report was clear that “the need for product stewardship legislation may change if significant progress is not made by the industry to establish affordable carpet recycling in Maine.” Since that time, minimal progress has been made with voluntary efforts to recycle carpet in Maine. Several states that signed the MOU have enacted or are considering carpet stewardship legislation; California became the first state³⁸ to enact a carpet stewardship law in 2010³⁹ and the New York Legislature is currently considering a carpet EPR bill.⁴⁰

CARE acknowledges the lack of recycling availability on their website, which states, “There is no simple, routine method in place today to recycle old carpet. Each case is individual since there is no infrastructure to handle old carpet at this time.”⁴¹ A contributing challenge to widespread carpet recycling is that some types of carpet currently on the market are readily recyclable and some are not.⁴² EPR has the opportunity to influence design by encouraging use of readily recyclable materials over those destined for disposal at end-of-life. While a real challenge exists for recycling low-value carpet made from materials that are not easy to recycle, the design of the carpet is a key factor. Manufacturers tasked with ensuring their products are recycled may be more likely to use high-value recyclable materials over low-value non-recyclable materials.

A product stewardship program for carpet will increase the recovery of materials for reuse and recycling and reduce the costs of waste management to local governments and taxpayers. For a

³⁵ *Environmental concentrations and consumer exposure data for selected flame retardants (TBB, TBPH, TBBPA, ATO)*, Consumer Product Safety Commission, 2015

³⁶ Gosavi RA, Knudsen GA, Birnbaum LS, Pedersen LC. 2013. Mimicking of estradiol binding by flame retardants and their metabolites: a crystallographic analysis. *Environ Health Perspect* 121(10):1194-1199.

³⁷ Other states include New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, North Carolina, Tennessee, South Carolina, Georgia, Florida, Minnesota, Wisconsin, Iowa, Washington, Oregon, and California.

³⁸ *Carpet stewardship law*, California Department of Resources Recycling and Recovery (CalRecycle).

³⁹ *Chapter 20. Product Stewardship for Carpets*, California Legislative Information.

⁴⁰ *Bill Summary for S07147*, New York State Assembly.

⁴¹ *FAQs, How can I recycle my old carpet?*, Carpet America Recovery Effort.

⁴² *Carpet Fiber Types*, California Department of Resources Recycling and Recovery (CalRecycle).

successful program, it is important to incentivize reuse and recycling as well as the use of recycled content.

Adequate funding and resource allocation is essential to establish a functional and lasting program. California's EPR program is funded by a consumer fee upon sale, which has increased steadily over time from \$0.05 per square yard to \$0.25 per square yard⁴³ and will increase again to \$0.35 per square yard as of January 2019.⁴⁴ During the public comment period for review and approval of CARE's 2017 carpet stewardship plan, dozens of negative comments were submitted over continued fee increases, many from flooring businesses concerned with the impact consumer fee increases were having on their carpet sales, business, or livelihood.⁴⁵ As with mattresses, Maine's large geographic size, low population, and lack of businesses to recycle carpet make it likely that enacting a law with the same financing mechanism would result in a per square yard fee at sale even higher than the \$0.35 fee in California. Additionally, financing an EPR program fully on revenues collected from a fee-at-sale provides little incentive for manufacturers to design their products for recycling. Given these dynamics, an EPR system for carpet funded at least partially through cost internalization may be most appropriate for Maine.

E. Solar panels

Product stewardship for photovoltaic (PV) solar panels meets all five criteria outlined in the Framework Law. There are no federal regulations to require solar panel recycling, nor are there any third-party or public recycling programs aside from "limited manufacturer take-back programs."⁴⁶ Recycling is generally motivated by either the value of raw materials or regulations that mandate recycling. Current technology makes it possible to extract or reuse approximately 80% of the solar panel materials.⁴⁷ By 2030, estimates suggest it will be technically possible to recover raw materials from waste solar panels sufficient to "produce approximately 60 million new panels, or 18 GW of power-generation capacity" with an estimated value of "up to USD 450 million (in 2016 terms)" and "by 2050, the recoverable value could cumulatively exceed USD 15 billion, equivalent to 2 billion panels, or 630 GW."⁴⁸ However, on an individual basis, there isn't "a large amount of money-making salvageable parts on any type of solar panel,"⁴⁹ and it is unlikely that sufficient economic motivation exists to support voluntary development of a robust collection and recycling network.

Approximately two-thirds of solar panels are crystalline-silicon (c-Si), made from 90% glass, polymer, and aluminum and silver, tin, and lead.⁵⁰ The remaining one-third of panels are thin-film, made from 98% glass, polymer, and aluminum with 2% copper and zinc and silicon semiconductor and may include indium, gallium, selenium, lead, and cadmium and tellurium in the form of

⁴³ *Public Notice: Consideration of Carpet America Recovery Effort's California Carpet Stewardship Plan 2018-2022*. California Department of Resources Recycling and Recovery (CalRecycle).

⁴⁴ *California Carpet Stewardship Assessment to Increase on January 1, 2019*, Carpet America Recovery Effort (CARE).

⁴⁵ *Public Notice: Consideration of Carpet America Recovery Effort's California Carpet Stewardship Plan 2018-2022*. California Department of Resources Recycling and Recovery (CalRecycle).

⁴⁶ Enbar, N. *PV life cycle analysis: Managing PV assets over an uncertain lifetime*. Electronic Power Research Institute, 2016

⁴⁷ *Ibid.*

⁴⁸ *End-of-life management: Solar photovoltaic panels*. IEA-PVPS Report Number: T12-06:2016

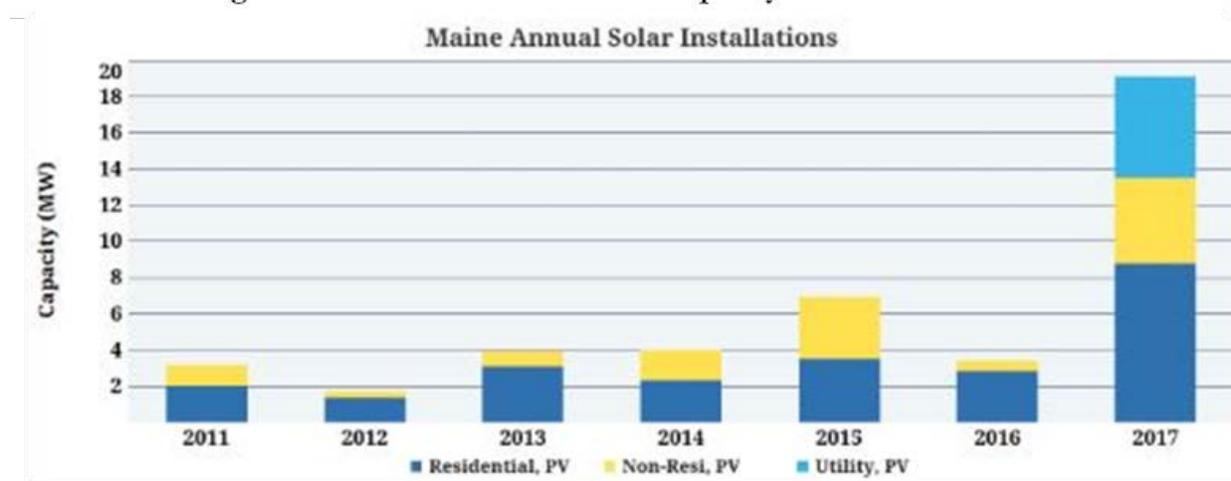
⁴⁹ "It's time to plan for solar panel recycling in the United States," April 2018, Solar Power World.

⁵⁰ *End-of-life management: Solar photovoltaic panels*. IEA-PVPS Report Number: T12-06:2016

cadmium telluride (CdTe).⁵¹ Heavy metals in solar panels including lead, tin, and cadmium can pollute the environment and pose threats to human health when panels are not properly managed.⁵² Landfill disposal poses risks as the panels may break and leach toxics into the soil.⁵³ A recent PV life cycle analysis noted that decommissioning plans for solar sites are meant to include information on safe disposal for all materials, but plans "often don't specify what to do or how to do it."⁵⁴

Solar panels have an average lifetime of 25-30 years.⁵⁵ Recycling of solar panels "was not a concern during their first 25 years of development," but early installations are now entering the waste stream in "considerable numbers."⁵⁶ Research modeling projects solar panel waste in the US may increase to between 170,000 to 1 million metric tons cumulatively by 2030 and to between "7.5-10 million tons in 2050."⁵⁷ The overall proportion of waste to new installations is expected to increase over time from an estimated 4-14% in 2030 and up to more than 80% in 2050.⁵⁸

Figure 5: New installation of solar capacity in Maine over time



Currently, there are approximately 4,268 solar installations powering 6,568 homes in Maine.⁵⁹ Prices for solar installation have decreased by an estimated 43% over the last five years in Maine, and the number of installations increased sharply in 2017.⁶⁰ Solar panel-specific treatment standards and collection and recycling regulations are "crucial to consistently, efficiently and profitably deal with increasing waste volumes."⁶¹ Given the lack of any solar panel-specific recycling program in Maine, municipalities are likely to face an increasing financial burden as solar panel waste increases. In the

⁵¹ *Ibid.*

⁵² Xu, Y., Li, J., Tan, Q., Peters, A. and Yang, C. (2018). Global status of recycling waste solar panels: A review. *Waste Management*, 75, pp.450-458.

⁵³ *Ibid.*

⁵⁴ Enbar, N. *PV life cycle analysis: Managing PV assets over an uncertain lifetime*. Electronic Power Research Institute, 2016

⁵⁵ Solar Energy Industry Association, *PV Recycling*: <https://www.seia.org/initiatives/pv-recycling>

⁵⁶ *End-of-life management: Solar photovoltaic panels*. IEA-PVPS Report Number: T12-06:2016

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*

⁵⁹ Installations and table from "Maine solar data current through Q3 2018," Solar Energy Industries Association, 2018.

⁶⁰ Installations and table from "Maine solar data current through Q3 2018," Solar Energy Industries Association, 2018.

⁶¹ *End-of-life management: Solar photovoltaic panels*. IEA-PVPS Report Number: T12-06:2016

US, the State of Washington has passed EPR legislation for solar panels. The legislation, passed in 2017, requires manufacturers to "finance the takeback and recycling system at no cost to the owner of the PV module" by 2021.⁶² The law requires that the manufacturers' plan includes performance goals for "combined reuse and recycling of collected photovoltaic modules as a percentage of the total weight of photovoltaic modules collected, which rate must be no less than eighty-five percent."⁶³ The regulation was part of a larger solar incentives package and is expected to generate new jobs and businesses in solar panel recycling. New York's Legislature is currently considering a solar panel EPR bill.⁶⁴

Proactively establishing EPR for solar panels will allow companies to internalize recovery costs into current production and sales. In addition, the increasing volume of PV waste may improve economies of scale over time.⁶⁵ Including incentives for design can also help minimize impacts on the environment and increase efficient use of resources for production, collection, and recycling.

V. Implementation status for Maine's other EPR programs

A. *Electronic waste - 38 M.R.S. § 1610*

This law was amended by Maine's 128th Legislature to increase efficiency by reducing brand-sorting. These amendments required changes to the Department's rule governing electronics recycling; law and rule changes went into effect in August.

Because of these changes:

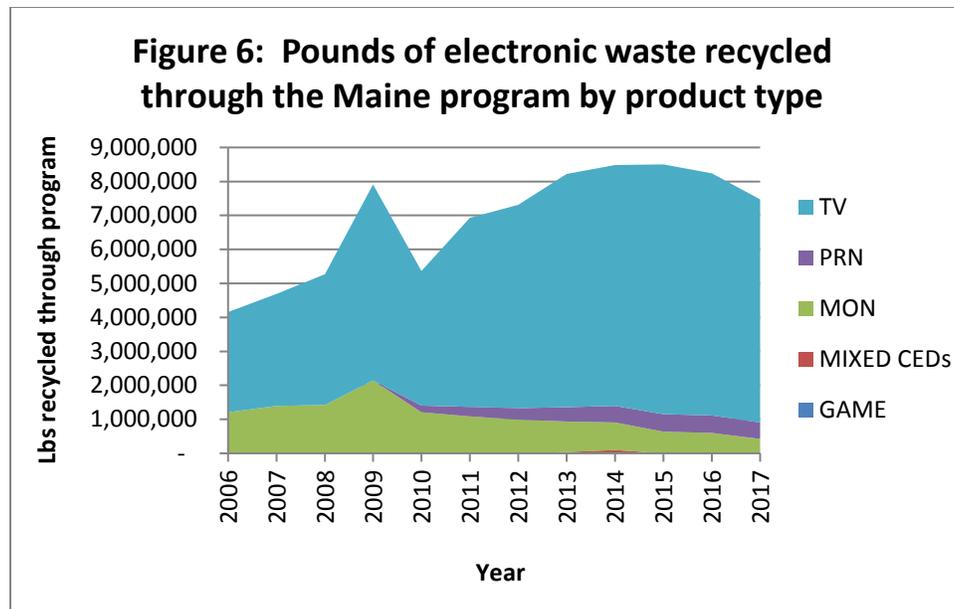
- historic manufacturers no longer register with the Department and are no longer billed for recycling costs;
- all recycling costs are distributed among current manufacturers according to a department determined recycling share that is based on national market share and adjusted to exempt small manufacturers and provide credit to manufacturers with environmentally preferable products and takeback programs;
- program payment structure no longer discourages refurbishment; and
- 3D printers have been added as covered products.

⁶² *Information for manufacturers of PV modules* Department of Ecology, State of Washington.

⁶³ Chapter 70.355 RCW, *Photovoltaic Module Stewardship and Takeback Program*, Washington State Legislature

⁶⁴ *Senate Bill S2837A*, The New York State Senate.

⁶⁵ *End-of-life management: Solar photovoltaic panels*. IEA-PVPS Report Number: T12-06:2016



The question of appropriate product scope was also discussed during the legislative work session and was largely unaddressed by the change. Another change that was not made, though it was suggested by program consolidators during both the legislative work session and department rulemaking, was the increase or removal of the per pound cap of recycling costs that can be approved by the Department.

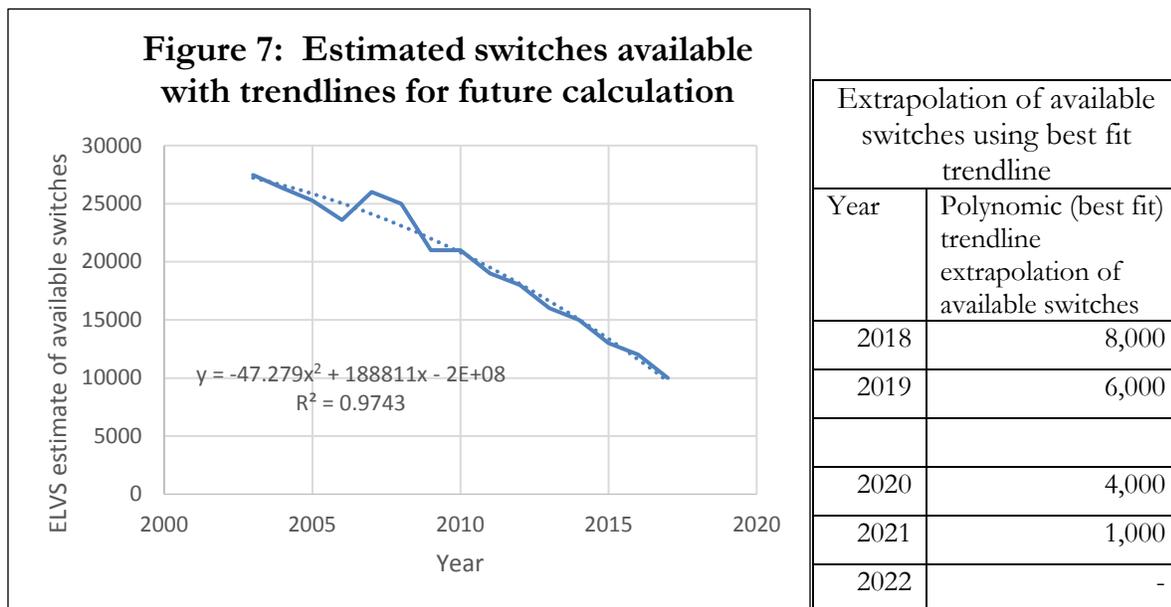
The department is undertaking an evaluation of the effectiveness of credits feeding into recycling share calculations and payments to consolidators for refurbishment, and gathering information on appropriate product scope and the sufficiency of the per pound cap on recycling payments set by department rule. Overall, e-waste collections continue to level off, likely due to light-weighting in the electronics industry.

B. Mercury auto switches – [38 M.R.S. § 1665-A](#)

There were no major changes in the implementation of this law in 2018. This program has been in place since 2003, so Department work mainly consists of telephone contact with previous participants to remind them of the need to collect switches and ensure they have materials and information they need to do so. Some work is still done to identify new participants using DMV Car Recycler records.

During 2017, Maine auto-recyclers collected 4448 switches containing approximately 9.8 pounds of mercury. This represents 44% of switches estimated to be available for collection and a more than 200% increase from 2016 collections.

The subsection of Chapter 16-B *Mercury-added products and services* that created this stewardship program also banned the sale of new vehicles with mercury-auto switches. As a result, the number of a switches available for collection is decreasing. Statute directs the department to recommend repeal of the program once the commissioner determines that the number of mercury switches available for collection is too small to warrant continued collection. The department is not recommending this action at this point.



End of Life Vehicle Solutions (ELVS), the non-profit entity that runs mercury auto-switch collection programs for auto manufacturers nationally, currently plans to end collection in states where switches are collected voluntarily in 2021. There are no available estimates of the number of switches available for recycling after 2017, but extrapolation of the estimates of switches available for collection in Maine from previous years suggest that after 2021, the number of available switches will be negligible. Actual collection amounts and information from automobile recyclers in the coming years can better inform the decision of when Maine’s law should sunset but, barring the development of additional information to the contrary, 2021 may be the year.

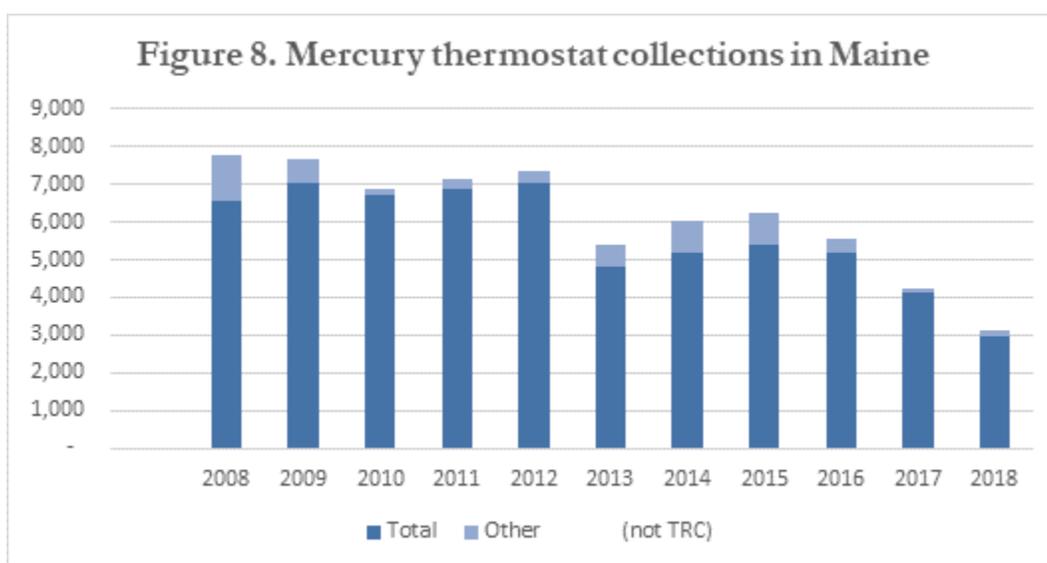
C. Mercury thermostats - [38 M.R.S. § 1665-B](#)

Program description: Maine’s *Mercury-added Thermostats* law, 38 M.R.S. § 1665-B, enacted in 2005, established extended producer responsibility for the collection and recycling of mercury-added thermostats, and beginning in 2007 required a five-dollar (\$5.00) incentive payment for each mercury thermostat returned.

Current performance: A total of 4,112 mercury thermostats were collected in 2017 (by TRC and through universal waste management), down from 5,190 in 2016 (3,973 by TRC and 139 through universal waste management). Preliminary data suggests TRC collections dropped to just under

3,000 mercury thermostats in 2018⁶⁶. Since 2001, approximately 534 pounds of mercury has been recovered through thermostat recycling efforts in Maine, 86% of which was recovered through TRC's program.⁶⁷

As was recommended in the *Implementing Product Stewardship in Maine* report submitted to the Legislature in February 2016, TRC simplified the manufacturers' financial incentive payment system for wholesaler and contractor locations. This new process was implemented throughout 2016 and 2017, and has received many positive comments from collection locations. Subsequent to the Department's 2016 report, TRC also made significant improvements to data access with a real-time reporting system that provides public access to TRC's current and historic mercury thermostat recycling data. TRC has been waiving its standard one-time \$25 fee for a mercury thermostat bin to encourage participation, and has provided the Department with new promotional materials focused on the \$5 incentive to distribute. In addition, TRC has conducted an annual round of site visits to 35-45 Maine collection locations that had not returned their mercury thermostat bin within the past year.



From 2007-2016, collections averaged roughly 5,200 thermostats per year, consistently at least 40% higher than rates achieved before the \$5 incentive was implemented. However, collections declined over the past two years; by 18% in 2017 and by 25% in 2018⁶⁸.

TRC conducted national and regional advertising campaigns 2017, but campaign efforts that may have reached Maine residents did not contain information about Maine's program and the \$5 incentive. However, TRC is currently ramping up its Maine-specific efforts and has been working with the Department to improve its education and outreach campaign in Maine. Statute requires that TRC provide an "analysis of program effectiveness" in its annual report. TRC provides a record

⁶⁶ Preliminary 2018 data is based on TRC's real-time reporting as of 12/28/2018.

⁶⁷ Department staff recently reviewed all historic data provided by TRC. An average of 3.18 grams of mercury per thermostat was found and used in calculations for this year's report. In previous reports, an estimate of 4 grams per thermostat was used to calculate the total amount of mercury collected.

⁶⁸ Preliminary 2018 data is based on TRC's real-time reporting as of 12/28/2018.

of year-to-year collections in Maine and nationwide as well as comparisons between state collections. These numbers do not account for the estimated number of thermostats available for collection, nor do they compare annual collections to the statutory performance goal of 160 pounds of mercury per year (equivalent to roughly 22,822 thermostats). TRC reported in 2017 that declines in mercury thermostat collections can be explained by the fact that production was phased out by 2007. However, mercury thermostats have a life expectancy of 30-50 years, although increasing options for energy-saving thermostats may result in early replacement.

The data show that millions of mercury thermostats were still being sold annually until the mid-2000s. In 2017, TRC reported collections of approximately 2.1 million mercury thermostats in its 20 years of operation, equivalent to 0.00002% of the mercury contained in thermostats sold in just the selective six years shown in the table below, which represent the time period during which mercury thermostats were phased out and sales were dwindling. It is unknown how many mercury thermostats have been collected through other programs or remain in use.

Without data upon which to base the claim that collections are dropping due to lack of available mercury thermostats, TRC and the Department do not have adequate information to assess the program's performance. The Department continues to recommend that TRC contract an independent third-party study to determine the expected annual outflow of mercury-added thermostats from Maine. The results of such a study would allow the Department to achieve a more accurate quantitative evaluation of program performance and better target efforts to improve collection rates, and could serve as a basis for adjusting statutory goals as appropriate.

Figure 9 - Total mercury sold in thermostats (pounds)⁶⁹

Year	Pounds mercury	Estimated thermostats
2001	29,253	4,172,659
2004	28,901	4,122,449
2007	7,485	1,067,663
2010	32	4,564
2013	102	14,549
2016	0	0

D. Architectural paint. 38 M.R.S. § 2144

Program description: PaintCare is a non-profit third-party organization established by the paint manufacturers to fulfill their responsibilities under EPR laws in effect in 8 states and the District of Columbia. The costs of operating the PaintCare program are funded by a fee levied at the point of sale on paint.

Consumers may return unwanted architectural paint at no cost to participating retail and municipal collection sites, and to municipally-offered household hazardous waste (HHW) collection events that partner with PaintCare. PaintCare provides the collection sites with gaylords (boxes that are approximately one cubic yard in size) for collection and shipping of the paint, in-person training and a training manual, and education and outreach materials for customers. In addition, PaintCare's Program Manager visits each collection location throughout the state at least once annually.

⁶⁹ Table data is based on fact sheet: IMERC Mercury Use in Thermostats, 2015.

Current performance: PaintCare reports on a fiscal year (July 1 – June 30) basis. In FY 2018 (July 1, 2017 – June 30, 2018), PaintCare collected and processed 129,907 gallons of postconsumer paint, 76% of which was latex and 24% of which was oil-based. The program had a recycling rate of approximately 59% in 2017, an increase over the 2016 recycling rate of 50%.⁷⁰ 90% of the oil-based paint was used as fuel and 10% was recycled into new paint; the percentages of oil-based paint recycled was slightly higher than in the previous reporting period. 83% of the collected latex was made into recycle-content paint and 1% was used as fuel; 16% was unrecyclable and sent to landfills for disposal. These percentages were unchanged from the previous reporting period. In addition, 105 tons of consumer packaging, i.e., metal and plastic containers, were recycled.

PaintCare's analysis shows that its collection network provides a permanent collection site within 15 miles of 94.2% of Maine's population, exceeding the 90% goal set in statute. The current fees at sale are adequate to fund the program going forward in 2018, PaintCare established a separate subsidiary to operate the Maine program, keeping all funds collected in Maine for Maine program activity only.

In FY 2018, PaintCare reached out to housing authorities in Maine, ran Facebook online advertisements, conducted a print newspaper advertisement campaign, and provided pamphlets, posters, brochures, and other materials for collection sites. This advertising effort was noted to be limited due to budget constraints as PaintCare sought to make up costs incurred prior to program implementation. The program ended the fiscal year with a surplus of \$270,717, and PaintCare has indicated that it will employ a variety of media activities to grow public awareness of the program, including television, radio, online and newspaper advertising, as program's financial health improves.

E. Plastic bags. [38 M.R.S. § 1605](#)

Maine's "Plastic bags; recycling" law requires retailers that use plastic bags to have a receptacle within 20 feet of their store entrance to collect used plastic bags and to ensure the bags are collected. Rates of compliance with this "self-implementing" law are unknown. The Department does not have the resources to inspect retailers to assess compliance, but does provide technical assistance when complaints are received.

VI. Conclusion

Over the past 2 decades Maine and other jurisdictions in the U.S. and Canada have gained significant experience implementing mandatory product stewardship programs. In this report, the Department has applied lessons learned from this experience to recommend amendments to Maine's current laws to improve the effectiveness of existing programs in ensuring the safe handling of products containing toxics and in diverting materials from disposal. These "lessons learned" also can be used to inform discussions as Maine develops legislative proposals for new EPR programs. Given recent upheavals in recycling markets, an EPR program for packaging can help address the financial burden that municipalities bear in fulfilling their responsibilities for managing MSW while ensuring materials continue to be recycled. Additionally, pharmaceuticals, mattresses, carpet and solar panels are other products that present end-of-life management challenges that may be addressed by carefully-constructed EPR programs.

⁷⁰ Based on the estimate that approximately 10% of paint sold each year is left over.

Appendices

*Appendix A – Proposed changes to Maine’s Product Stewardship law***An Act to Improve Maine’s Product Stewardship Law****Be it enacted by the People of the State of Maine as follows:****Sec. 1.** 38 M.R.S. §1776, is amended to read:

A product stewardship program established for a product or product category designated by the Legislature for inclusion in a product stewardship program must be established and implemented in accordance with the provisions of this section.

1. Program. A producer selling a product in the State that is a designated product or that is in a designated product category is responsible individually, collectively or through a stewardship organization for the implementation and financing of a product stewardship program to manage the product at the end of the product's life in accordance with the priorities in section 2101.

A. The program must include a collection system that is convenient and adequate to serve the needs of covered entities in both rural and urban areas, including a permanent collection site within 15 miles of 90% of Maine residents within 1 year of the start of product collections unless the commissioner determines the 90% requirement is not practicable due to geographical constraints or that an alternative collection system will result in equivalent and more efficient collection.

B. The program must provide for effective education and outreach to promote the use of the program and to ensure that collection options are understood by covered entities.

C. A producer or stewardship organization, including a producer's or stewardship organization's officers, members, employees and agents that organize a product stewardship program under this chapter, is immune from liability for the producer's or stewardship organization's conduct under state laws relating to antitrust, restraint of trade, unfair trade practices and other regulation of trade or commerce only to the extent necessary to plan and implement the producer's or stewardship organization's chosen organized collection or recycling system.

D. The program must provide for a minimum ½-time employee of each producer or stewardship organization dedicated to implementing the program in Maine.

2. Requirement for sale. One hundred eighty days after a product stewardship plan under subsection 5 is approved in accordance with subsection 8, a producer may not sell or offer for sale in the State the relevant product, unless the producer of the product participates individually, collectively or through a product stewardship program in accordance with an approved product stewardship plan.

3. No fee. A product stewardship program may not charge a fee at the time an unwanted product is delivered or collected for recycling or disposal.

4. Costs. Producers in a product stewardship program shall finance the collection, transportation, ~~and~~ reuse, recycling or disposition of the relevant product, effective education and outreach, program assessment, reporting, any incentives necessary to achieve program collection goals, reasonable fees to the department for review of the program plan and any proposed amendments, and an annual fee to cover the actual costs for annual report review, oversight, administration and enforcement. The annual fee may not exceed \$100,000 per year per stewardship program.

5. Requirement to submit a plan. Within one year of a product's or product category's being designated for inclusion in a product stewardship program, the relevant producer or stewardship organization shall submit a product stewardship plan to the department for approval. The plan must include:

A. Identification and contact information for:

(1) The individual or entity submitting the plan;

- (2) All producers participating in the product stewardship program;
- (3) The owners of the brands covered by the program; and
- (4) If using a stewardship organization, the stewardship organization, including a description of the organization and the tasks to be performed by the organization. The description must include information on how the organization is organized, including administration of the organization and management of the organization;

B. A description of the collection system, including:

- (1) The types of sites or other collection services to be used;
- (2) How all products covered under the product stewardship program will be collected in all counties of the State; and
- (3) How the collection system will be convenient and adequate to serve the needs of all entities;

C. The names and locations of recyclers, processors and disposal facilities that may be used by the product stewardship program;

D. Information on how the product and product components will be safely and securely transported, tracked and handled from collection through final disposition;

E. ~~If possible, a~~ A description of the methods to be used to reuse, deconstruct ~~or~~ and recycle the unwanted product to ensure that the product components are transformed or remanufactured to the extent feasible;

F. A description of how the convenience and adequacy of the collection system will be monitored and maintained;

G. A description of how the amount of product and product components collected, recycled, processed, reused and disposed of will be measured;

H. A description of the education and outreach methods that will be used to recruit, train and monitor collection sites, and to encourage participation by collection sites and consumers throughout the state on an on-going basis;

I. A description of how education and outreach methods will be evaluated, including at a minimum an annual consumer awareness survey to assess consumer knowledge about product management options and collection locations. The survey questions and methodology must be approved by the Department and the survey must be administered by a third party;

J. ~~Any~~ A description of how program performance will be assessed, including performance goals established by producers or a stewardship organization to show success of the program. When the performance goal is expressed as a recycling or diversion from disposal rate, the plan must include a description of the methodology and the relevant historic sales data used to develop the rate. The department shall keep sales information submitted pursuant to this paragraph confidential as provided under section 1310-B. The performance goals must include at least 50% of Maine residents having awareness in the third year of program implementation, or a recycling rate of at least 50% in the third year of program implementation and 80% in the sixth year of program implementation unless sufficient evidence is provided to justify alternative performance goals; and

K. A description of how the program will be financed. If the program is financed by a per unit assessment paid by the ~~producer to a stewardship organization~~ consumer at the point of sale, a plan for an annual 3rd-party audit to ensure revenue from the assessment does not exceed the cost of implementing the product stewardship program must be included, and

L. An anticipated budget for the program, broken down into administrative, collection, transportation, disposition, and communication costs. The annual budget must be sufficient to fund a minimum ½-time employee of each producer or stewardship organization dedicated to implementing the program in Maine, and funds to reimburse the department for its costs incurred in implementing the program. The budget must not include costs for legal fees or costs related to legislative efforts.

6. Plan amendments. Changes to an approved product stewardship plan may be initiated by the responsible manufacturers or by the department.

A. A change to an approved product stewardship plan by a manufacturer must be submitted to the department for review prior to the implementation of that change. If a change is not substantive, such as the addition of or a change to collection locations, or if an additional producer joins the product stewardship program, approval is not needed, but the producer or stewardship organization operating the program must inform the department of the change within 14 days of implementing the change. The department shall review plan amendments in accordance with subsection 8.

B. When the department determines that a product stewardship program has failed to make adequate progress toward achieving program goals, the department shall notify the responsible entities in writing of its findings and may direct the manufacturer to implement specific changes to the program plan within 6 months of the written notification. This may include the implementation of financial incentives or a deposit/refund system if appropriate for the product.

7. Annual reporting. By ~~February~~ March 1st of the calendar year after the calendar year in which an approved product stewardship program is implemented, and annually thereafter, the producer or stewardship organization operating the program shall submit to the department a report on the program for the previous calendar year. The report must include, at a minimum:

- A. The amount of each product collected by collection site per county;
- B. A description of the methods used to collect, transport and process the product;
- C. An evaluation of the program performance, including, if possible, diversion and recycling rates together with certificates of recycling or similar confirmations and an evaluation of the convenience of collection;
- D. A description of the methods used for education and outreach efforts ~~and an evaluation of the convenience of collection~~ and the effectiveness of outreach and education. Every 2 years, the report must include the results of an assessment of the methods used for and effectiveness of education and outreach efforts. The assessment must be completed by a 3rd party;
- E. If applicable, the report of the 3rd-party audit conducted to ensure that revenue collected from the assessment does not exceed implementation costs pursuant to subsection 5, paragraph K; ~~and~~
- F. Any recommendations for changes to the product stewardship program to improve convenience of collection, consumer education and program evaluation; and
- G. A financial report on the program, including: the total cost of implementing the program, as determined by an independent financial audit, including a breakdown of administrative, collection, transportation, disposition and communication costs; and an anticipated budget for the next program year.

8. Department review and approval. Within ~~20 business~~ 120 days after receipt of a proposed product stewardship plan, the department shall determine whether the plan complies with ~~subsection 5~~ this section. If the plan is approved, the department shall notify the submitter in writing. If the department rejects the plan, the department shall notify the submitter in writing stating the reason for rejecting the plan. ~~A submitter whose plan is rejected must submit a revised plan to the department within 60 days of receiving a notice of rejection.~~

Appendix B – Proposed changes to Maine’s Mercury-added Lamp law

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 38 M.R.S. §1672, is amended to read:

1. Definitions. As used in this section, unless the context otherwise indicates, the following terms have the following meanings.

...

E. Covered entity. "Covered entity" means a household in this State, a business or nonprofit organization in this State exempt from taxation under the United States Internal Revenue Code of 1986, Section 501(c)(3) that employs 100 or fewer individuals, an elementary school in this State or a secondary school in this State.

F. Proprietary information. "Proprietary information" means information that is a trade secret or production, commercial or financial information the disclosure of which would impair the competitive position of the submitter and which is not otherwise publicly available.

G. "Population center" means an urbanized area or urban cluster as defined by the United States Department of Commerce, Bureau of the Census to identify areas of high population density and urban land use with a population of 2,500 or greater.

Sec. 2. 38 M.R.S. §1672, is amended to read:

4. Manufacturer recycling programs for household mercury-added lamps. Effective January 1, 2011, each manufacturer of mercury-added lamps sold or distributed for household use by covered entities in the State on or after January 1, 2001 shall individually or collectively implement a department-approved program for the recycling of mercury-added lamps from ~~households~~ covered entities.

A. The recycling program required under this subsection must include, but is not limited to, the following:

(1) Convenient collection locations adequate to serve the needs of covered entities in both rural and urban areas located throughout the State where ~~residents~~ covered entities can drop off their ~~household~~ mercury-added lamps without cost, including but not limited to municipal collection sites and participating retail establishments;

(a) A method to determine the number and geographic distribution of lamp collection sites based on the use of geographic information modeling. By January 1, 2020 the program must provide that at least 90% of state residents have a permanent lamp collection site within a 15-mile radius of their residences, unless the commissioner determines that the 90% requirement is not practicable due to geographical constraints. If the commissioner determines the 90% requirement is not practicable, the commissioner may approve a plan that includes a geographic distribution of lamp collection sites that is practicable. The distribution of lamp collection sites must include at least one additional lamp collection site for each 30,000 residents in a population center that is located to provide convenient and reasonably equitable access for residents within the population center unless otherwise approved by the commissioner;

(b) Identification of the ways in which the program will coordinate with existing solid waste collection programs and events, including strategies to reach the State's residents who do not have a permanent lamp collection site within a 15-mile radius of their residences and to ensure adequate coverage of service center communities as defined in Title 30-A, section 4301, subsection 14-A;

(2) Handling and recycling equipment and practices in compliance with the universal waste rules adopted pursuant to section 1319-O, subsection 1, paragraph F, with subsection 6 if a crushing device is used and with all other applicable requirements;

(3) Provision of education and outreach efforts by the manufacturer to promote the program. The education and outreach efforts must include strategies for reaching consumers in all areas of the State and must ensure that collection options are understood by covered entities;

~~Effective~~ The education and outreach program, including, but not limited to, shall, at a minimum, include posters, window clings, and point-of-purchase signs and other materials provided to retail establishments collection locations without cost; and that can be prominently displayed and will be easily visible to the consumer, and outreach to the general public including annual web, print, and radio media campaigns in both rural and urban areas throughout the State.

(4) Goals for consumer awareness of the requirement to recycle mercury-added lamps and lamp collection locations, provisions for routinely evaluating the effectiveness of education and outreach efforts; and procedures for improving education and outreach efforts if goals are not achieved;

(5) A minimum ½-time employee of one or more manufacturers dedicated to implementing the program in Maine; and

~~(4)~~ (6) An annual report to the department which must, at a minimum, include the following information:

~~(a) or~~ (a) The number of mercury-added lamps recycled under the manufacturer's program and recommendations for program modifications to increase the percentage of discarded lamps recycled under the recycling program;

~~(b),~~ (b) The estimated percentage of mercury-added lamps available for recycling that were recycled under the program;

~~(c) and~~ (c) The methodology for estimating the number of mercury-added lamps available for recycling, which must include an assumption of the average life span by type of mercury-added lamp and number of lamps sold by type in the years on which the recycling calculation is based. If the manufacturer may designate this as proprietary information, the department shall handle this information in the same manner as confidential information is handled under section 1310-B ;

(d) A description of the methods used for education and outreach efforts and an evaluation of the effectiveness of the recycling program, recommendations for increasing the number of lamps recycled under the recycling program education and outreach. This must include a description of the methods used for measuring consumer awareness of the requirement to recycle mercury-added lamps, and every 2 years the results of an assessment of consumer awareness of the program completed by an independent third party;

(e) The location of and contact information for each collection point established under the program, and an assessment of the convenience of collection;

(f) Any recommendations for changes to the product stewardship program to improve convenience of collection, consumer education and program evaluation; and

~~(g) and a~~ (g) An accounting of the costs associated with administering and implementing the recycling program;

...

F. ~~The department may determine that a manufacturer's recycling program is in compliance with paragraph A, subparagraphs (1), (2) and (4) for the collection of compact fluorescent mercury-added lamps from households covered entities if the manufacturer provides adequate financial support for the collection and recycling of such lamps to municipalities and a conservation program established pursuant to Title 35 A, section 10110 and implemented by the Efficiency Maine Trust.~~

*Appendix C – Proposed replacement for Maine’s rechargeable battery recycling law***An Act to Establish Comprehensive Consumer Battery Recycling**

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 38 MRSA §1611 is enacted to read:

§ 1611. Stewardship program for small batteries

1. Purpose. It is the intent of the legislature that the cost associated with the handling, recycling, and disposal of used batteries be the responsibility of the producers and consumers of batteries, not the local government or their service providers, state government, or tax payers. These costs should be internalized at or before the point of sale.

Further, it is the intent of the legislature that materials in batteries be made available for use in new products and, therefore, that they should be recycled to the greatest extent possible. Battery stewardship in this state should incentivize the design and marketing of batteries and battery-containing products that are more recyclable, less hazardous, and, in general, more environmentally sound.

2. Definitions. As used in this section, unless the context otherwise indicates, the following terms have the following meanings.

A. "Approved product" means:

(1) A covered battery or a covered battery-containing product the producer of which participates in a battery stewardship program approved by the department; or

(2) A covered battery-containing product that has been listed in accordance with subsection 9 as the product of a participant in a covered battery stewardship program.

B. "Battery stewardship plan" means a plan submitted to the commissioner in accordance with subsection 3 by a producer or a battery stewardship organization.

C. "Battery stewardship program" means a system implemented for the collection, transportation, recycling, and disposal of covered batteries and/or covered battery-containing products in accordance with a battery stewardship plan approved by the Department.

D. "Brand" means a trademark, including both a registered and an unregistered trademark, a logo, a name, a symbol, a word, an identifier or a traceable mark that identifies a covered battery or covered battery-containing product and identifies as the producer of the battery or product the owner or licensee of the brand.

E. "Covered battery" means a new or unused primary battery or a small rechargeable battery.

F. "Covered battery-containing product" means a new or unused primary battery-containing product or a rechargeable battery-containing product, or a product containing a covered battery that is not easily removed from the product using common household tools.

(1) a product subject to section 1610 from which a primary battery or a rechargeable battery is not easily removed or is not intended or designed to be removed from the product other than by the manufacturer;

(2) a medical device, as described in the Federal Food, Drug and Cosmetic Act, 21 United States Code, Section 321(h) (2012), if, when the device or battery within the device is discarded, it must be treated as biomedical waste or if changing the supplier of the battery contained in the medical device would trigger the need for premarket review of the device with the United States Food and Drug Administration pursuant to the Federal Food, Drug and Cosmetic Act, 21 United States Code, Section 360 (2012), unless such device is listed as an exempt device under 21 United States Code, Section 360 (m)(2012) or other applicable provisions of law.

G. "Discarded battery" means a covered battery that a user discarded, abandoned or sent for recycling.

H. "Operator" means a producer or covered battery stewardship organization that implements and administers a covered battery stewardship program.

I. "Participant" means a producer that establishes or participates in a covered battery stewardship program individually or by appointing and having that appointment accepted by a covered battery stewardship organization to operate the program on the producer's behalf.

J. "Primary battery" means a nonrechargeable battery that weighs 2 kilograms or less, including, but not limited to, nonrechargeable alkaline, carbon-zinc and lithium metal batteries.

K. "Producer" means, with respect to a covered battery or covered battery-containing product that is sold, offered for sale or distributed for sale in the State, the following:

(1) The person that manufactures the covered battery or covered battery-containing product and sells or offers for sale in the State that battery or product under the person's own brand;

(2) If there is no person to which subparagraph (1) applies, the owner or licensee of a brand under which the covered battery or covered battery-containing product is sold or distributed in the State; or

(3) If there is no person to which subparagraph (1) or (2) applies, a person, including, but not limited to, a wholesaler or retailer, that imports the covered battery or covered battery-containing product into the United States for sale or distribution in the State.

L. "Proprietary information" means information that is a trade secret or production, commercial or financial information the disclosure of which would impair the competitive position of the submitter and would make available information not otherwise publicly available.

M. "Rechargeable battery" means a battery that contains one or more voltaic or galvanic cells, electrically connected to produce electric energy, that weighs less than 5 kilograms and that is designed to be recharged and to provide less than 40 volts direct current. "Rechargeable battery" does not include:

(1) A battery that contains electrolyte as a free liquid; or

(2) A battery or battery pack that employs lead-acid technology, unless the battery or battery pack is sealed, contains no liquid electrolyte and is intended by its manufacturer to power a handheld device or to provide uninterrupted backup electrical power protection for consumer covered battery-containing products or stationary office equipment.

N. "Recycling" means any process through which a discarded covered battery or its components or by-products is transformed from its original identity or form into new usable or marketable material. "Recycling" does not include the incineration of a discarded covered battery or its components or by-products for energy recovery.

O. "Retailer" means a person that sells or offers a covered battery or covered battery-containing product for retail sale, as defined in Title 36, section 1752, subsection 11, in the State, including through a remote offering

for sale, such as a sales outlet or sales catalog or via the Internet.

P. "Stewardship organization" means an organization appointed by more than one producer to design, submit a plan for, implement, and administer a battery stewardship program in accordance with this section.

Q. "Wholesaler" means a person that offers for sale or sells in the State a covered battery or covered battery-containing product in a sale that is not a retail sale, as defined in Title 36, section 1752, subsection 11, with the intention that the battery or product be resold.

2. Product labeling. By January 1, 2020, a producer that sells, offers for sale or distributes for sale in the State a covered battery, either as a replacement battery or packaged with or contained in a covered battery-containing product, shall, to the extent feasible, ensure that the covered battery is labeled in a manner identifying the chemistry employed in storing energy in the battery to facilitate sorting of discarded batteries by recyclers.

3. Submission of plan. No later than 6 months after the effective date of this section, except as specified in subsection 6 or 10, each producer of a covered battery or covered battery-containing product, individually or through a battery stewardship organization, shall submit a plan for the establishment of a battery stewardship program to the commissioner for approval. The plan must include, at a minimum and where applicable:

A. Identification and contact information for:

- (1) The individual or entity submitting the plan;
- (2) All producers participating in the battery stewardship program;
- (3) A listing of the brands and the owners of the brands covered by the program; and
- (4) If a stewardship organization, a description of the organization and the tasks to be performed by the organization. The description must include information on how the organization is organized, including administration and management of the organization;

B. A description of the collection system, including:

- (1) The types of sites or other collection services to be used, including as applicable a description of how the program may use covered battery collection points that are established through other battery collection services;
- (2) A description of how the program will provide convenient, free statewide collection opportunities for discarded batteries adequate to serve the needs of all entities;
- (3) The criteria to be used by the program in determining whether an entity may serve as a collection location for covered batteries under the program. The plan must allow all retailers, wholesalers, municipalities, solid waste management facilities and other entities that meet such criteria to voluntarily serve as a collection location; and
- (4) A description of how the convenience and adequacy of the collection system will be monitored and maintained;

C. Information on how discarded covered batteries will be safely and securely transported, tracked and handled from collection through final disposition;

D. The names and locations of recyclers, processors and disposal facilities that may be used by the product stewardship program, and a description of the methods that will be used to ensure that the components of the discarded batteries are recycled to the maximum extent practicable or otherwise responsibly managed;

E. A description of how the amount of product and product components collected, recycled, processed, reused and disposed of will be measured;

F. A description of the education and outreach methods that will be used to establish, train and monitor collection sites, and to encourage participation by collection sites and consumers throughout the state on an on-going basis;

G. A description of how program performance will be assessed, including performance goals that include, at a minimum, at least 50% of Maine residents knowing how to recycle their covered batteries in the third year of program implementation and 80% in the sixth year of program implementation;

H. An anticipated budget for the program, broken down into administrative, collection, transportation, disposition, and communication costs. The annual budget must fund a minimum ½-time person dedicated to implementing the program in Maine, and funds to reimburse the department for its costs incurred in implementing the program. The budget must not include costs for legal fees or costs related to legislative efforts.

I. If the plan is submitted by an organization, a description of the financing method through which implementation of the plan will be funded. The financing method must:

(1) Allocate to producers of primary batteries and primary battery-containing products costs that are directly attributable to the collection, transportation and recycling of primary batteries, such as reclamation costs;

(2) Allocate to producers of small rechargeable batteries and rechargeable battery-containing products costs that are directly attributable to the collection, transportation and recycling of rechargeable batteries, such as reclamation costs; and

(3) Allocate all other costs on the basis of the weights of types of batteries collected or some other nondiscriminatory basis acceptable to participating producers of primary batteries, small rechargeable batteries, primary battery-containing products and rechargeable battery-containing products.

4. Approval of plan. The commissioner shall review a plan submitted under subsection 3 and make a determination of whether to approve the plan within 90 days of receipt of the plan. In conducting a review of a submitted plan, the commissioner may consult with producers, associations representing producers, covered battery stewardship organizations, retailers and recyclers.

A. If the commissioner determines that a submitted plan fails to meet all applicable requirements of subsection 3, the commissioner shall provide to the producer or organization that submitted the plan a written notice of determination describing the reasons for rejecting the plan. No later than 45 days after receiving a written notice of determination from the commissioner rejecting a submitted plan, the producer or organization may amend the plan and resubmit the plan to the commissioner for reconsideration. The commissioner shall review an amended plan, make a determination of whether to approve the amended plan and provide a written notice of determination notifying the producer or organization of the commissioner's decision within 45 days of receipt of the amended plan. A producer or organization whose amended plan is rejected by the commissioner may appeal the commissioner's decision in accordance with section 346.

B. If the commissioner approves a submitted plan, the commissioner shall provide to the producer or organization that submitted the plan a written notice of determination of the plan's approval. No later than 30 days after receiving a written notice of determination from the commissioner approving a submitted plan, the producer or organization shall make the approved plan available on its publicly accessible website, but is not required to make available any information contained in the approved plan protected under the Uniform Trade Secrets Act.

C. No later than 45 days after the commissioner's approval of a submitted plan, the department shall make available on its publicly accessible website a list of participants in and brands of covered batteries and covered battery-containing products included under the approved plan or provide instructions on how to obtain such information as provided by the producer or organization that submitted the approved plan.

5. Implementation of plan. A producer or organization that submitted a plan approved by the commissioner under subsection 4 shall implement the plan no later than the first day of the next calendar quarter after the date the plan is approved by the commissioner, except that if the period of time between the date the plan is approved and the first day of the next calendar quarter is less than 60 days, the producer or organization shall implement the plan within 60 days after the date the plan is approved.

6. Amendment of plan and termination of program. This subsection governs amendment of a plan approved under subsection 4 and termination of a program established under an approved plan.

A. An approved plan under subsection 4 may be amended at the discretion of the producer or organization that submitted the plan without approval from the commissioner if the proposed amendments are non-substantive and do not significantly alter the likelihood that the plan will result in the successful collection and recycling of discarded batteries. The producer or organization shall at the beginning of each calendar quarter notify the department of any amendments made to the approved plan in the previous calendar quarter that are non-substantive and do not significantly alter the likelihood that the plan will result in the successful collection and recycling of discarded batteries.

B. If proposed amendments to an approved plan are substantive and would significantly alter the likelihood that the plan will result in the successful collection and recycling of discarded batteries, including, but not limited to, amendments eliminating a substantial number of retail collection locations, adding or deleting battery chemistries to be collected, addressing threats to the financial viability of the organization or addressing disruption in transportation or service affecting the ability of the producer or organization or any service providers to collect or process covered batteries or covered battery-containing products, the producer or organization shall submit to the commissioner a revised plan describing the proposed amendments. The commissioner shall review the revised plan and make a determination of whether to approve the proposed amendments, in whole or in part, within 90 days of receipt of the revised plan. If the commissioner determines that the revised plan fails to meet all applicable requirements of subsection 3, the commissioner shall provide to the producer or organization a written notice of determination describing the reasons for rejecting the revised plan. No later than 45 days after receiving a written notice of determination from the commissioner rejecting a revised plan, the producer or organization may amend and resubmit the revised plan to the commissioner for reconsideration. The commissioner shall review an amended revised plan, make a determination of whether to approve the amended revised plan and provide a written notice of determination notifying the producer or organization of the commissioner's decision within 45 days of receipt of the amended revised plan. Review and consideration by the commissioner of a revised plan under this paragraph, including whether the commissioner will hold a hearing on the revised plan, shall be conducted in accordance with the department's rules concerning the processing of applications and other administrative matters. A producer or organization whose revised plan is rejected by the commissioner may appeal the commissioner's decision in accordance with section 346.

C. A producer or organization that submitted a plan approved under subsection 4 may terminate the program implementing that plan no earlier than 90 days after providing notice to the commissioner and to program participants of the program's termination. Prior to the termination of a program, each producer included in the program shall, individually or through a covered battery stewardship organization that has agreed to act on the producer's behalf, submit a plan for the establishment of a covered battery stewardship program to the commissioner for approval consistent with subsection 3 or join an existing organization.

D. A plan approved under subsection 4 remains in effect until a revised plan is adopted in accordance with paragraph B or the program implementing that plan is terminated in accordance with paragraph C by the producer or organization that submitted the plan.

7. Collection locations. This subsection applies to collection locations.

A. A retailer, a wholesaler, a municipality, a solid waste management facility and any other private or public entity may voluntarily serve as a collection location for discarded batteries under an approved and implemented program, so long as the operator of the program determines that the collection location meets

the criteria for collection locations established under the program's approved plan.

B. The participants in a program must fully underwrite the costs of battery collection containers provided to each collection location established under the program, including the costs of all materials necessary to comply with the safe collection requirements of subsection 12, as well as the costs of pickup and transportation of discarded batteries from each collection location, and may not charge a collection location for such items or services.

C. An entity serving as a collection location shall not be required to make available more than one battery collection container at a single location.

D. An entity serving as a collection location may not refuse collection of batteries based on the brand or brands of the batteries. The operator of the program may not refuse the pickup or transfer of collected batteries from a collection location based on the brand or brands of the batteries collected.

E. An entity serving as a collection location may not charge consumers any fee relating to the collection of discarded batteries at the collection point. An entity serving as a collection location may not impose any fee on the operator of the program as a condition of voluntarily agreeing to serve as a collection location.

8. Sales prohibition. This subsection governs the sale of covered batteries and covered battery-containing products in the State.

A. Beginning July 1, 2020, a manufacturer, distributor, wholesaler or retailer may not sell, offer for sale, distribute for sale or offer for promotional purposes in the State a covered battery or covered battery-containing product unless the producer of the battery or product has joined an existing covered battery stewardship organization or submitted a plan for the establishment of a covered battery stewardship program that has been approved by the commissioner.

B. Notwithstanding paragraph A, a manufacturer, distributor, wholesaler or retailer may continue to sell, distribute for sale, offer for sale or offer for promotional purposes in the State a covered battery or covered battery-containing product manufactured prior to July 1, 2020, but shall:

(1) By October 1, 2020, sell or otherwise divest or dispose of its remaining stock of covered batteries manufactured prior to July 1, 2020 by a producer that has not joined an existing covered battery stewardship organization or submitted a plan for the establishment of a covered battery stewardship program that has been approved by the commissioner; and

(2) By October 1, 2021, sell or otherwise divest or dispose of its remaining stock of covered battery-containing products manufactured prior to July 1, 2020 by a producer that has not joined an existing covered battery stewardship organization or submitted a plan for the establishment of a covered battery stewardship program that has been approved by the commissioner.

C. Notwithstanding paragraphs A and B, beginning July 1, 2021, a manufacturer, distributor, wholesaler or retailer of medical devices, as described in the Federal Food, Drug and Cosmetic Act, 21 United States Code, Section 321(h) (2012), may not sell, offer for sale, distribute for sale or offer for promotional purposes in the State a medical device containing batteries not included in a plan approved under subsection 4, except that a manufacturer, distributor, wholesaler or retailer may continue to sell, distribute for sale, offer for sale or offer for promotional purposes in the State a medical device manufactured prior to July 1, 2021, but shall, by October 1, 2022, sell or otherwise divest or dispose of its remaining stock of medical devices containing batteries manufactured prior to July 1, 2021 by a producer that has not joined an existing covered battery stewardship organization or submitted a plan for the establishment of a covered battery stewardship program that has been approved by the commissioner. Notwithstanding subsection 1, paragraph L, prior to July 1, 2022, a manufacturer, distributor, wholesaler or retailer of medical devices shall not be considered a producer under this section.

D. Notwithstanding paragraphs A, B or C, a hospital or other health care provider may until July 1, 2027

continue to sell or otherwise exhaust its existing inventory of medical devices containing batteries manufactured prior to July 1, 2020 and not included in a plan approved under subsection 4.

9. Producer exclusions. Notwithstanding subsection 1, paragraph K, a person that manufactures, sells, offers for sale or imports for sale in the State a covered battery-containing product is not considered a producer under this section if, no later than 45 days after receiving a request from the commissioner or an operator, the person:

A. Verifies to the commissioner or the operator that the product only contains batteries with visible, permanent labels clearly identifying the producer or brand of the batteries, that the battery is easily removed and that the producer or brand is a participant in or covered under the operator's program; and

B. Identifies the chemistry type of the batteries contained in the product and provides data on the estimated weight of batteries contained in the products sold in the State. In January of each year thereafter, the person shall notify the commissioner or the operator as to any changes to the chemistry type of the batteries contained in the product or the estimated weights of batteries contained in the products sold in the State.

An operator of a covered battery stewardship program that includes the covered battery contained in the person's covered battery-containing product shall list the person as a participant in and the product as covered under the operator's program. If the producer of the covered battery contained in the person's covered battery-containing product subsequently terminates its participation in a covered battery stewardship program in the State, or if the person ceases to use covered batteries in its covered battery-containing product that are produced by a participant in or are covered under an existing covered battery stewardship program in the State, the person shall be considered a producer under subsection 1, paragraph L, and must join an existing covered battery stewardship organization or submit a plan for the establishment of a covered battery stewardship program and have that plan approved by the commissioner.

10. New producers. A producer who seeks to sell, offer for sale or distribute for promotional purposes in the State a covered battery or covered battery-containing product not sold or offered for sale in the State prior to July 1, 2020 must notify the commissioner prior to the sale, offer for sale or distribution of the covered battery or covered battery-containing product in the State.

A. Upon receiving notification under this subsection from a new producer, the commissioner shall list the producer as a new producer on the department's publicly accessible website.

B. No later than 90 days following a new producer's notification to the commissioner, the producer shall submit a plan to the commissioner in accordance with subsection 3 or join an existing organization operating under a plan approved under subsection 4.

C. If a new producer fails to submit a plan or join an existing organization within the 90-day period under paragraph B, the producer may not sell a covered battery or covered battery-containing product in the State after the expiration of the 90-day period and a retailer may not sell that producer's battery or product in the State after 120 days following the expiration of the 90-day period.

D. Notwithstanding paragraph C, if a new producer submits a plan within the 90-day period under paragraph B and that plan is ultimately rejected by the commissioner under subsection 4 after the expiration of the 90-day period, the producer may not sell the covered battery or covered battery-containing product in the State after 45 days following the commissioner's final determination rejecting the submitted plan and a retailer may not sell the producer's battery or product in the State after 120 days following the commissioner's final determination rejecting the submitted plan.

A new producer that fails to submit a plan that is approved by the commissioner under subsection 4 or to join an existing organization within the time limits described in this subsection may not sell, offer for sale or distribute for promotional purposes a covered battery or covered battery-containing product not sold or offered for sale in the State prior to July 1, 2020 until the producer submits a plan for approval consistent with subsection 3 that is subsequently

approved by the commissioner or joins an existing organization.

11. Return of noncompliant products. If a plan approved under subsection 4 is subsequently determined by the commissioner not to be in compliance with this section, a producer who sells, offers for sale or distributes for sale in the State a covered battery or covered battery-containing product included in that plan shall, upon request by a retailer, designate a location to which the retailer may ship the battery or product for further handling and shall reimburse the retailer for costs incurred in shipping the battery or product to the designated location.

12. Safe collection. Any entity that collects covered batteries in the State, has a physical presence in the State and is operating under or in cooperation with a covered battery stewardship program shall ensure that all discarded covered batteries placed in its collection containers are protected from short-circuiting in accordance with applicable regulations of the federal Department of Transportation, 49 Code of Federal Regulations, Subtitle B (2015) and other applicable laws or regulations and take reasonable steps to prevent the placement of materials other than properly protected discarded covered batteries into its collection containers.

13. Reporting. By March 1st of the calendar year after the calendar year in which an approved product stewardship program is implemented, and annually thereafter, the producer or stewardship organization operating the program shall submit to the department a report describing activities carried out by the program pursuant to the plan during the previous calendar year. The report must include, at a minimum:

- A. Updated contact information for the program operator and all participating producers, a list of the brands of covered batteries and covered battery containing devices for which it is responsible.
 - B. The weight of covered batteries collected by the program in the previous calendar year, reported to the extent feasible by:
 - (1) amount by county or by collection site;
 - (2) amount of primary batteries and amount of rechargeable batteries by chemistry type; and
 - (3) amount of battery-containing products.
- C. The location of and contact information for each collection point established under the program, and an assessment of the convenience of collection;
 - D. A description of the manner in which collected covered batteries and covered battery-containing products were sorted, consolidated and processed by the program;
 - E. A description of the methods and materials used for education and outreach, and an evaluation of the effectiveness of education and outreach efforts. Every 2 years, the report must include the results of an assessment of consumer awareness of the program completed by an independent 3rd party;
 - F. A financial report on the program, including: the total cost of implementing the program, as determined by an independent financial audit, including a breakdown of administrative, collection, transportation, disposition and communication costs; and an anticipated budget for the next program year; and
 - G. Any recommendations for changes to the product stewardship program to improve convenience of collection, consumer education and program evaluation.

14. Proprietary information. Proprietary information submitted to the department in a covered battery stewardship plan, in an amendment to a plan or pursuant to the reporting requirements of this section that is identified by the submitter as proprietary information is confidential and must be handled by the department in the same manner as confidential information is handled under section 1310-B.

15. Administration and enforcement of program. The department shall enforce this section and may adopt rules consistent with this section as necessary for the purpose of implementing, administering and enforcing this section. Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375,

subchapter 2-A.

A. The department shall charge a reasonable fee to be paid by an applicant for review and approval of a covered battery stewardship plan. Fees established under this paragraph must be based on the actual costs to the department of reviewing and approving a covered battery stewardship plan and may not exceed \$25,000.

B. The department may establish a reasonable annual fee, to be paid by the operator of each covered battery stewardship program, to cover the department's costs for annual report review, oversight, administration and enforcement of the program. Fees established under this paragraph must be based on the actual costs to the department of annual report review, oversight, administration and enforcement of the program and may not exceed \$50,000 per year.

16. Limited private right of action. Except as provided in paragraph D, a nonprofit covered battery stewardship organization recognized by the United States Internal Revenue Service as exempt from taxation under Section 501 of the United States Internal Revenue Code, as amended, that has spent at least \$250,000 transporting, collecting and recycling covered batteries in the State in the previous calendar year, may maintain a civil action in Superior Court against one or more producers not participating in the organization's program to recover a portion of the organization's costs and additional sums, as set forth in this subsection.

A. Damages recoverable under this subsection shall be a fair share of the actual costs incurred by the plaintiff organization in collecting covered batteries of a defendant producer discarded in the State for which the defendant producer was required under this section to submit and implement a covered battery stewardship plan or join an existing covered battery stewardship program, as well as the plaintiff organization's costs incurred in handling, transporting and recycling or properly disposing of such batteries. Additional amounts recoverable under this subsection shall include an award of reasonable attorney's fees and court costs, including expert witness fees, and, if a defendant producer did not operate or participate in a covered battery stewardship program established under this section during the time period in which covered batteries of the defendant producer were collected in the State, transported and recycled by the plaintiff organization, a punitive sum of 3 times the damages award shall be assessed.

B. In an action by a plaintiff organization against a defendant producer that did not operate or participate in a covered battery stewardship program established under this section during the time period in which covered batteries of the defendant producer were collected, transported and recycled by the plaintiff, the plaintiff may establish the defendant's fair share of the plaintiff's actual costs by:

(1) Providing the court with market share data that the court finds reasonably represents the percentage of sales by the defendant into the State;

(2) Providing the court with data generated from discarded battery sorts involving a minimum of 500 pounds of discarded covered batteries collected at each of 3 or more collection locations in the State that are found by the court to have been collected in an unbiased manner and to be reasonably representative of the population of the State; or

(3) Through any other method that the court finds reliable in establishing the defendant's fair share of the plaintiff's actual costs.

C. In an action by a plaintiff organization against a defendant producer that operated or participated in a covered battery stewardship program established under this section during the time period in which covered batteries of the defendant producer were collected, transported and recycled by the plaintiff, the plaintiff may establish the defendant's fair share of the plaintiff's actual costs by providing the court with data establishing the relative weight of discarded covered batteries collected by the plaintiff for which the defendant was required under this section to collect, transport and recycle under a covered battery stewardship program compared to the weight of other discarded covered batteries collected by the plaintiff. This data may be generated by the plaintiff:

(1) Through the collection of data from discarded battery sorts involving a minimum of 500 pounds of discarded covered batteries collected at each of 3 or more collection locations in the State that are found by the court to have been collected in an unbiased manner and to be reasonably representative of the population of the State;

(2) Through an analysis of actual collections by the organization that is found by the court to be reasonably representative of total actual collections in the State; or

(3) Through any other method that the court finds reliable in establishing the defendant's fair share of the plaintiff's actual costs.

D. An action may not be commenced under this subsection against any potential defendant until 60 days after a plaintiff provides to all potential defendants a written notice of the claim setting forth the amount of the claim and the basis for the calculation of that amount.

E. No action may be brought under this subsection against a retailer or franchisor of retail outlets that was operating or participating in a covered battery stewardship program established under this section, individually or on behalf of its franchisees, to recover costs or additional sums incurred during a time period in which covered batteries were collected, transported and recycled by the retailer or franchisor.

F. The department shall not be a party to or be required to provide assistance or otherwise participate in a civil action authorized under this subsection unless subject to a subpoena before a court of jurisdiction.

17. Preemption. The State intends to occupy and preempt the entire field of legislation concerning the regulation of the stewardship of covered batteries and covered battery-containing products. Any existing or future order, ordinance, rule or regulation in this field of any political subdivision of the State is void.

18. Antitrust exclusions. A producer, a group of producers and a covered battery stewardship organization, and an agent, officer, director and employee of such entities, preparing, submitting a plan for, implementing or administering a covered battery stewardship program in accordance with this section, and a wholesaler and retailer that engages in conduct authorized by this section, are granted immunity, individually and jointly, from all applicable antitrust laws of the State for the limited purpose of establishing, implementing and administering a covered battery stewardship program and otherwise complying with the requirements of this section, and any activity undertaken by these entities in accordance with and authorized under this section is not an unlawful restraint of trade, a conspiracy or other violation of any provision of any applicable antitrust law of the State.

An action taken by a producer, a group of producers or an organization to increase the recycling of covered batteries in accordance with this section that affects the types or quantities of batteries recycled or the cost and structure of any covered battery stewardship program is not a violation of any provision of Title 10, chapter 201, except when such action constitutes an agreement establishing or affecting the price of covered batteries or the output or production of covered batteries or restricting the geographic area in which covered batteries will be sold or the customers to whom covered batteries will be sold.

Sec. 2. 38 MRSA §2165 sub-4 is repealed: Repealed.

4. Manufacturer responsibility. A manufacturer of dry cell mercuric oxide or rechargeable batteries that are subject to subsection 1 shall:

A. Establish and maintain a system for the proper collection, transportation and processing of waste dry cell mercuric oxide and rechargeable batteries for purchasers in this State;

B. Clearly inform each purchaser that intends to use these batteries of the prohibition on disposal of dry cell mercuric oxide and rechargeable batteries and of the available systems for proper collection, transportation and processing of these batteries;

C. Identify a collection system through which mercuric oxide and rechargeable batteries must be returned to the manufacturer or to a manufacturer designated collection site; and

~~D. Include the cost of proper collection, transportation and processing of the waste batteries in the sales transaction or agreement between the manufacturer and any purchaser.~~

*Appendix D – Proposed changes to Maine’s Bottle Bill law***An Act to Improve Maine’s Container Redemption Law**

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 38 MRSA § 352. Fees Table II is amended to read:

3109, Redemption centers	Annual Processing Fee	Annual Licensing Fee
	<u>\$0</u>	<u>\$100</u>

Sec. 2. 38 MRSA §3102 sub-13 is amended, and subs- 16-A and 17-A are enacted to read:

13. Manufacturer. "Manufacturer" means a person who ~~bottles, cans or otherwise places beverages in beverage containers for sale to distributors or dealers;~~ offers beverages for sale in or into Maine under its brand or label or licenses other entities to offer beverages for sale in or into Maine under its brand or label, or imports a beverage into the United States that is manufactured by a person without a presence in the United States; and an out-of-state wholesaler of liquor that holds a certificate of approval in accordance with Maine law under Title 28-A.

16-A. Pick-up agent. "Pick-up agent" means the initiator of deposit, distributor, or contracted agent that receives and transports redeemed beverage containers from licensed redemption centers to recycling.

17-A. Proprietary information. "Proprietary information" means information that is a trade secret or production, commercial or financial information the disclosure of which would impair the competitive position of the submitter and which is not otherwise publicly available.

Sec. 3. 38 MRSA §3105 sub-5 is amended to read:

5. Label registration. An initiator of deposit shall register the container label of any beverage offered for sale in the State on which it initiates a deposit. Registration must be on forms or in an electronic format provided by the department and must include the universal product code for each combination of beverage and container manufactured. The initiator of deposit shall renew a label registration annually and whenever that label is revised by altering the universal product code or whenever the container on which it appears is changed in size, composition or glass color. The initiator of deposit shall also include as part of the registration the method of collection for that type of container, identification of a collection agent, identification of all of the parties to a commingling agreement that applies to the container and proof of the collection agreement. The department may charge a fee for registration and registration renewals under this subsection. ~~Rules adopted pursuant to this subsection that establish fees are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A and subject to review by the joint standing committee of the Legislature having jurisdiction over environmental and natural resources matters.~~

Sec. 4. 38 MRSA §3106 sub-5 is amended to read:

1. Dealer acceptance. Except as provided in this section, a dealer operating a retail space of 5000 square feet or more may not refuse to accept from any consumer or other person not a dealer any empty, unbroken and reasonably clean beverage container ~~of the kind, size and brand sold by the dealer,~~ or refuse to pay in cash the refund value of the returned beverage container as established by section 3103 unless that dealer has a written agreement with a local redemption center within 1 roadway mile to provide redemption services on behalf of that dealer. This section does not require an operator of a vending machine to maintain a person to accept returned beverage containers on the premises where the vending machine is located.

~~**2. Permissive refusal by dealer.** A dealer may refuse to accept from a consumer or other person and to pay the refund value on any beverage container, if the place of business of the dealer and the kind, size and brand of beverage container are included in an order of the department approving a redemption center under section 3109.~~

...

6. Obligation to preserve recycling value. Notwithstanding subsection 8, a distributor or its agent may refuse to accept, or pay the refund value and handling costs to a dealer, redemption center or other person for, a beverage container that has been processed by a reverse vending machine in a way that has reduced the recycling value of the container below current market value. This subsection may not be interpreted to prohibit a written processing agreement between a distributor and a dealer or redemption center and does not relieve a distributor of its obligation under subsection 8 to accept empty, unbroken and reasonably clean beverage containers. The department shall adopt rules to establish the recycling value of beverage containers under this subsection and the rules may authorize the use of a 3rd-party vendor to determine if a beverage container has been processed by a reverse vending machine in a manner that has reduced the recycling value below current market value. The rules must outline the method of allocating among the parties involved the payment for 3rd-party vendor costs. ~~Rules adopted under this subsection are routine technical rules pursuant to Title 5, chapter 375, subchapter 2-A.~~

7. Reimbursement of handling costs. Reimbursement of handling costs is governed by this subsection.

A. In addition to the payment of the refund value, the initiator of the deposit under section 3103, subsections 1, 2 and 4 shall reimburse the dealer or local redemption center for the cost of handling beverage containers subject to section 3103, in an amount that equals at least 3¢ per returned container for containers picked up by the initiator before March 1, 2004, at least 3 1/2¢ for containers picked up on or after March 1, 2004 and before March 1, 2010 and at least 4¢ for containers picked up on or after March 1, 2010. The initiator of the deposit may reimburse the dealer or local redemption center directly or indirectly through a party with which it has entered into a commingling agreement.

B. In addition to the payment of the refund value, the initiator of the deposit under section 3103, subsection 3 shall reimburse the dealer or local redemption center for the cost of handling beverage containers subject to section 3103 in an amount that equals at least 3¢ per returned container for containers picked up by the initiator before March 1, 2004, at least 3 1/2¢ for containers picked up on or after March 1, 2004 and before March 1, 2010 and at least 4¢ for containers picked up on or after March 1, 2010. The initiator of the deposit may reimburse the dealer or local redemption center directly or indirectly through a contracted agent or through a party with which it has entered into a commingling agreement.

C. The reimbursement that the initiator of the deposit is obligated to pay the dealer or redemption center pursuant to paragraph A or B must be reduced by 1/2¢ for any returned container that is subject to managed in accordance with a qualified commingling agreement that allows the dealer or redemption center to commingle beverage containers of like ~~product group, material and size.~~ A commingling agreement is qualified for purposes of this paragraph if the department determines that 50% or more of the beverage containers of like product group, material and size for which the deposits are being initiated in the State are covered by the commingling agreement or that the initiators of deposit covered by the commingling agreement are initiators of deposit for wine containers who each sell no more than 100,000 gallons of wine or 500,000 beverage containers that contain wine in a calendar year. Once the initiator of deposit has established a qualified commingling agreement for containers of a like product group, material and size, the department shall allow additional brands to be included from a different product group if they are of like material. The State, through the Department of Administrative and Financial Services, Bureau of Alcoholic Beverages and Lottery Operations, ~~shall make every reasonable effort to enter into~~ may operate as a qualified commingling agreement under this paragraph ~~with every other initiator of deposit for provided it allows the commingling of~~ with every other initiator of deposit for provided it allows the commingling of beverage containers that are of like ~~product group, size and material as the beverage containers for which the State is the initiator of deposit.~~

D. Paragraphs A, B and C do not apply to a brewer who annually produces no more than 50,000 gallons of its product or a bottler of water who annually sells no more than 250,000 containers each containing no more than one gallon of its product. In addition to the payment of the refund value, an initiator of deposit under section 3103, subsections 1 to 4 who is also a brewer who annually produces no more than 50,000 gallons of its product or a bottler of water who annually sells no more than 250,000 containers each containing no more than one

gallon of its product shall reimburse the dealer or local redemption center for the cost of handling beverage containers subject to section 3103 in an amount that equals at least 3 ~~1/2~~¢ per returned container.

8. Obligation to pick up and recycle containers. The obligation to pick up and recycle beverage containers subject to this chapter is determined as follows.

A. A distributor that initiates the deposit under section 3103, subsection 2 or 4 has the obligation to pick up and recycle any empty, unbroken and reasonably clean beverage containers of the particular kind, size and brand sold by the distributor from dealers to whom that distributor has sold those beverages and from licensed redemption centers ~~designated to serve those dealers pursuant to an order entered under section 3109~~. A distributor that, within this State, sells beverages under a particular label exclusively to one dealer, which dealer offers those labeled beverages for sale at retail exclusively at the dealer's establishment, shall pick up any empty, unbroken and reasonably clean beverage containers of the kind, size and brand sold by the distributor to the dealer only from those licensed redemption centers that enter into a written agreement to provide redemption services for ~~serve the various establishments of the dealer, under an order entered under section 3109~~. A dealer that manufactures its own beverages for exclusive sale by that dealer at retail has the obligation of a distributor under this section. The commissioner may establish by rule, in accordance with the Maine Administrative Procedure Act, criteria prescribing the manner in which distributors shall fulfill the obligations imposed by this paragraph. The rules may establish a minimum number or value of containers below which a distributor is not required to respond to a request to pick up empty containers. Any rules adopted under this paragraph must allocate the burdens associated with the handling, storage and transportation of empty containers to prevent unreasonable financial or other hardship.

B. The initiator of the deposit under section 3103, subsection 3 has the obligation to pick up any empty, unbroken and reasonably clean beverage containers of the particular kind, size and brand sold by the initiator from dealers to whom a distributor has sold those beverages and from licensed redemption centers designated to serve those dealers pursuant to an order entered under section 3109 and to ensure the containers are recycled. The obligation may be fulfilled by the initiator directly or indirectly through a contracted agent.

C. An initiator of the deposit under section 3103, subsection 2, 3 or 4 has the obligation to pick up and recycle any empty, unbroken and reasonably clean beverage containers that are commingled pursuant to a commingling agreement along with any beverage containers that the initiator is otherwise obligated to pick up pursuant to paragraphs A and B.

D. The initiator of deposit or initiators of deposit who are members of a commingling agreement have the obligation under this subsection to pick up and recycle empty, unbroken and reasonably clean beverage containers of the particular kind, size and brand sold by the initiator from dealers to whom a distributor has sold those beverages and from licensed redemption centers ~~designated to serve those dealers~~ every 15 days. The initiator of deposit or initiators of deposit who are members of a commingling agreement have the obligation to make additional pickups when a redemption center has collected 10,000 beverage containers from that initiator of deposit or from the initiators of deposit who are members of a commingling agreement.

The obligations of the initiator of the deposit under this subsection may be fulfilled by the initiator directly or through a party with which it has entered into a commingling agreement. A contracted agent hired to pick up beverage containers for one or more initiators of deposit is deemed to have made a pickup at a redemption center for those initiators of deposit when it picks up beverage containers belonging to those initiators of deposit.

9. Plastic bags. A dealer or redemption center has an obligation to pick up plastic bags that are used by that dealer or redemption center to contain beverage containers. Plastic bags used by a dealer or redemption center and the cost allocation of these bags must conform to rules adopted by the department concerning size and gauge. ~~Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.~~

Sec. 5. 38 MRS §3107 is amended to read:

Notwithstanding any other provision of this chapter to the contrary, 2 or more initiators of deposit may enter into a commingling agreement through which some or all of the beverage containers for which the initiators have initiated deposits may be commingled by dealers and operators of redemption centers as provided in this section.

The department shall determine that a commingling agreement is qualified for purposes of this chapter when: 50% or more of the beverage containers of like product group, material and size for which the deposits are being initiated in the State are covered by the commingling agreement; the initiators of deposit covered by the commingling agreement are initiators of deposit for wine containers who each sell no more than 100,000 gallons of wine or 500,000 beverage containers that contain wine in a calendar year; or commingling is implemented under the terms of a plan submitted and approved in accordance with paragraph 5.

An initiator of deposit that enters into a commingling agreement pursuant to this section shall permit any other initiator of deposit to become a party to that agreement on the same terms and conditions as the original agreement. Once the initiator of deposit has established a qualified commingling agreement, the department shall allow additional brands to be included from a different product group if they are of like material.

1. Commingling requirement. If initiators of deposit enter into a commingling agreement pursuant to this section, commingling of beverage containers must be by all containers of like product group, material and size. An initiator of deposit required pursuant to section 3106, subsection 8 to pick up beverage containers subject to a commingling agreement also shall pick up all other beverage containers subject to the same agreement. The initiator of deposit may not require beverage containers that are subject to a commingling agreement to be sorted separately by a dealer or redemption center.

2. Commingling of like materials. For purposes of this section, containers are considered to be of like materials if made up of one of the following:

- A. Plastic;
- B. Aluminum;
- C. Metal other than aluminum; and
- D. Glass.

3. Commingling of like products. For purposes of this section, like products are those that are made up of one of the following:

- A. Beer, ale or other beverage produced by fermenting malt, wine and wine coolers;
- B. Spirits;
- C. Soda;
- D. Noncarbonated water; and
- E. All other beverages.

4. Registration of commingling agreements. Not later than 48 hours following the execution or amendment of a commingling agreement, including an amendment that adds an additional party to an existing agreement, the parties shall file a copy of the commingling agreement or amendment with the department.

5. Commingling by a third party or stewardship organization. An initiator of deposit may enter into an agreement for its beverage containers to be managed in a commingling program administered by a third party or through a stewardship organization as defined in chapter 18, section 1771. The third party or stewardship organization shall submit a plan to operate a commingling program to the department for review and approval as a qualified commingling agreement.

The commingling program must require redemption centers to commingle all containers of participating manufacturers by like material, and shall establish containerizing standards to provide for fair apportionment of costs among participating manufacturers, either on the basis of the total weight of containers marketed or by unit count. An initiator of deposit shall report by the 20th day of the month following the end of March, June, September and December to the administrator of the commingling program its sales of beverages into Maine for the previous three months by brand and number of nonrefillable containers sold by product size and material type, and the average container weight by material type and size. The third party or stewardship organization shall assign

financial responsibility to participating initiators of deposit based on each initiator of deposit's proportion of the total weight of beverage containers marketed in Maine by material type or on actual unit counts.

The third party or stewardship organization may require a participating initiator of deposit to provide financial assurance in the form of a deposit of no greater than the cost of beverage container deposits, container handling fees for redemption centers and any contractual fees for up to 4 months of anticipated sales in Maine. The third party or stewardship organization shall retain the deposit funds in a separate account and may use the funds to pay program costs in the event the initiator of deposit fails to pay the third party or stewardship organization for incurred costs within 90 days of invoicing.

Sec. 6. 38 MRSA §3109 is amended to read:

1. Establishment. Local redemption centers may be established and operated by any person or municipality, agency or regional association as defined in section 1303-C, subsection 24, subject to the approval of the commissioner, to serve local dealers and consumers, at which consumers may return empty beverage containers as provided under section 3106.

2. Application for approval. Application for approval of a local redemption center must be filed with the department. The application must state the name and address of the person responsible for the establishment and operation of the center, ~~the kinds, sizes and brand names of beverage containers that will be accepted and the names and addresses of each dealers with whom the redemption center has entered into a written agreement to provide redemption services in accordance with section 3106 sub-5 be served and their distances from the local redemption center, and a statement that the local redemption center will accept and manage all beverage containers registered in accordance with section 3105.~~

3. Approval. The commissioner may approve the licensing of a local redemption center if the redemption center complies with the requirements established under section 3113. The order approving a local redemption center license must state the dealers to be served and the kinds, sizes and brand names of empty beverage containers that the center accepts.

4. Redemption center acceptance refund account. A ~~local~~ licensed redemption center may not refuse to accept from any consumer or other person not a dealer any empty, unbroken and reasonably clean beverage container of the kind, size and brand sold in the state by a dealer served by the center as long as the label for the container is registered under section 3105, subsection 5 or refuse to pay in cash the refund value of the returned beverage container as established by section 3103. A redemption center or reverse vending machine is not obligated to count containers or to pay a cash refund at the time the beverage container is returned as long as the amount of the refund value due is placed into an account to be held for the benefit of the consumer and funded in a manner that allows the consumer to obtain deposits due within 2 business days of the time of the return.

~~**5. Posted lists.** A list of the dealers served and the kinds, sizes and brand names of empty beverage containers accepted must be prominently displayed at each local redemption center.~~

5-A. Beverage container handling. A redemption center shall tender only beverage containers sold in the state to pick-up agents in shells, shipping cartons, bags and other containers prepared to ensure accurate eligible beverage container unit counts.

~~**6. Withdrawal of approval.** The ~~District Court~~ department may, in a manner consistent with the Maine Administrative Procedure Act, ~~withdraw approval~~ revoke the license of a local redemption center if there has not been compliance with the approval order or if the local redemption center no longer provides a convenient service to the public.~~

Sec. 7. 38 MRSA §3113 sub-1, sub-2, sub-3 and sub-4 are amended, and **sub-5 and sub-6** are enacted to read:

....

1. Procedures; licensing fees. The department shall adopt rules establishing the requirements and procedures for issuance of licenses and annual renewals under this section, including a fee structure. Initial rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. ~~Rules adopted effective after calendar year 2003 are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A and are subject to review by the joint standing committee of the Legislature having jurisdiction over environmental and natural resources matters.~~

2. ~~Criteria for licensing rules~~ Licensing criteria. In developing rules under subsection 1 for licensing redemption centers, the department shall consider at least the following:

- A. The health and safety of the public, including sanitation protection when food is also sold on the premises;
- B. The convenience for the public, including standards governing the distribution of centers by population or by distance, or both;
- C. The proximity of the proposed redemption center to existing redemption centers and the potential impact that the location of the proposed redemption center may have on an existing redemption center;
- D. The proposed owner's record of compliance with this chapter and rules adopted by the department pursuant to this chapter; and
- E. The hours of operation of the proposed redemption center and existing redemption centers in the proximity of the proposed redemption center.

3. Location of redemption centers; population requirements. The department may grant a license to a redemption center if the following requirements are met:

- A. The department may license up to 5 redemption centers in a municipality with a population over 30,000;
- B. The department may license up to 3 redemption centers in a municipality with a population over 20,000 but no more than 30,000; and
- C. The department may license up to 2 redemption centers in a municipality with a population over 5,000 but no more than 20,000.

For a municipality with a population of no more than 5,000, the department may license redemption centers in accordance with rules adopted by the department. ~~Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.~~

4. Exceptions. Notwithstanding subsection 3:

- A. An owner of a redemption center who is renewing the license of a redemption center licensed by the department as of April 1, 2009 need not comply with subsection 3;
- B. An entity that is a ~~food establishment or~~ distributor licensed by or registered with the department need not comply with subsection 3;
- C. A reverse vending machine is not considered a redemption center for purposes of subsection 3 when it is located in a licensed redemption center; and
- D. The department may grant a license that is inconsistent with the requirements set out in subsection 3 only if the applicant has demonstrated a compelling public need for an additional redemption center in the municipality.

5. Initiator of deposit annual report. Each initiator of deposit shall report annually by March 1 to the department concerning its deposit transactions in the preceding calendar year. The report must be in a form prescribed by the department and must include the number of nonrefillable beverage containers sold in Maine by container size, beverage type, delineated at a minimum into wine, spirits, and all other beverages, and the number of nonrefillable beverage containers returned by redemption value. The report required by this subsection is proprietary information and must be handled by the department in the same manner as confidential information is handled under section 1310-B.

6. Pick-up agent annual report. Each third-party pick-up agent shall report annually by March 1 to the department on redemptions for each initiator of deposit it served in the preceding calendar year. The report must be in a form prescribed by the department and must include the number of nonrefillable containers returned by redemption value except that a third-party pick-up agent may report by the average weight and total weight of containers returned by material type for containers managed within a commingling agreement established in accordance with section 3107 sub-5.

Sec. 8. 38 MRS §3115 is amended to read:

The department shall administer this chapter and has the authority, following public hearing, to adopt necessary rules to carry it into effect. The department may adopt rules governing local redemption centers that receive beverage containers from dealers supplied by distributors other than the distributors servicing the area in which the local redemption center is located in order to prevent the distributors servicing the area within which the redemption center is located from being unfairly penalized. Rules adopted pursuant to this chapter are routine technical rules pursuant to Title 5, chapter 375, subchapter 2-A except rules that establish or modify fees are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A and subject to review by the joint standing committee of the Legislature having jurisdiction over environmental and natural resources matters.

Sec. 9. 38 MRS §3116 sub-2 is amended to read:

2. Aggrieved applicants. An applicant aggrieved by a decision made by the department may appeal the decision to the board pursuant to section 344(2-A) or by filing an appeal with the Superior Court and serving a copy of the appeal upon the department in accordance with the Maine Rules of Civil Procedure, Rule 80C. The appeal must be filed and served within 30 days of the mailing of the department's decision.

*Appendix E – Proposed changes to Maine’s cellular telephone law***§ Be it enacted by the People of the State of Maine as follows:****Sec. 1. 38 M.R.S. §2143** is amended to read:

1. Definitions. As used in this section, unless the context otherwise indicates, the following terms have the following meanings.

A. "Cellular telephone" means a mobile wireless telephone device that is designed to send or receive transmissions through a cellular radiotelephone service as defined in 47 Code of Federal Regulations, Section 22.99 (2005). "Cellular telephone" does not include a wireless telephone device that is integrated into the electrical architecture of a motor vehicle.

B. "Cellular telephone service provider" means a provider of wireless voice or data retail service.

C. "Retailer" means a person, firm or corporation that sells or offers to sell a cellular telephone to a consumer at retail.

2. Collection system. Effective January 1, 2008, a retailer shall accept, at no charge, used cellular telephones from any person. A retailer required to accept used cellular telephones under this subsection shall post, in a prominent location open to public view, a notice printed in boldface type and containing the following language: "We accept used cellular telephones at no charge."

3. Disposal ban. Effective January 1, 2008, a person may not dispose of a cellular telephone in solid waste for disposal in a solid waste disposal facility.

~~**4. Reports.** By January 1, 2009, and every year thereafter, a cellular telephone service provider shall report to the department the number of cellular telephones collected pursuant to this section and how the collected cellular telephones were disposed of, reused or recycled. Annually, the department shall report on the collection system to the joint standing committee of the Legislature having jurisdiction over natural resources matters. The report may be included in the report required pursuant to section 1772, subsection 1.~~