

# MAINE STATE LEGISLATURE

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**Report to the Joint Standing Committee on Environment  
and Natural Resources  
128<sup>th</sup> Legislature, Second Session**

# **Implementing Product Stewardship in Maine**

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## I. EXECUTIVE SUMMARY

This report is prepared in accordance with 38 M.R.S. §§ 1771 through 1776, Maine's *Product Stewardship* framework law. This law requires the Department of Environmental Protection ("Department" or "DEP") to annually develop a report for the Legislature that includes an evaluation of the performance of existing product stewardship programs, and recommendations for improvements and/or new programs consistent with the minimum standards contained in the law.

This report includes updates on the performance evaluations of Maine's seven extended producer responsibility programs presented in last year's report [Implementing Product Stewardship in Maine: January 2017](#). These programs (beverage containers, dry mercuric oxide and rechargeable batteries, mercury auto switches, electronic waste, mercury thermostats, mercury lamps, and architectural paint) require producers to establish collection and recycling programs for their products. Background information on each of these programs and on the concept of product stewardship can be found in that previous report. The performance of each of these extended producer responsibility (EPR) programs in 2017 was similar to their achievements in 2016.

Along with a discussion of any significant changes in the programs that occurred in 2016 and into 2017, this report includes draft legislation for consideration by the Maine Legislature's Joint Standing Committee on the Environment and Natural Resources. This legislation is targeted at increasing system efficiencies and reducing costs of implementing one of Maine's most successful recycling programs, the electronic waste (e-waste) recycling program, established in accordance with 38 M.R.S. § 1610, *Electronic Waste*.

Given that the 128<sup>th</sup> Legislature considered several proposals for new product stewardship programs during its first session, this report does not include recommendations for any new programs.

Maine's *Product Stewardship* framework law requires the Department to solicit and collect public comments on the content of the report for 30 days prior to submittal to the Legislature, and to append all comments received to the report. Upon submittal, this report is intended to provide the Joint Standing Committee on the Environment and Natural Resources (ENR) with a status check on Maine's current product stewardship programs, and information from a variety of perspectives on proposals for improvements or additional programs. If it should choose to do so, ENR has the authority to introduce legislation based on the information in this report pursuant to [38 M.R.S. § 1772.5](#).

## II. EXISTING PROGRAMS' PERFORMANCE AND RECOMMENDATIONS

Maine has seven product stewardship laws that give manufacturers significant responsibility for ensuring that the products they put on the market are handled at the end-of-life to maximize recycling of materials and minimize the release of toxics and waste materials to the environment. Table 1 highlights each program's results and environmental benefits, and when compared to Table 1 in last year's report, [Implementing Product Stewardship in Maine: January 2017](#), shows that the performance of each of these extended producer responsibility (EPR) programs in 2017 was similar to their achievements in 2016.

**Table 1 - Summary of Product Stewardship Programs' Performance**

Product	Performance measure and 2016 results	Estimated environmental benefit
<b>Beverage containers</b>	Recycling rate estimated to be 80-90% <sup>1</sup>	Clean landscape (containers subject to deposit are returned for recycling); avoided environmental degradation due to lessened demand for virgin materials for container manufacture.
<b>Rechargeable batteries</b>	Number of active collection sites in Maine - <b>202</b>	31,561 pounds of materials recycled and diverted from disposal in 2016
<b>Mercury auto switches</b>	Percent switches from end-of-life vehicles recycled – <b>17.11%</b>	Estimated pounds of mercury release prevented: 2016 – 4.53 pounds Since 2003 – 149.28 pounds
<b>Consumer electronics</b>	Pounds per capita recycled – <b>8.94 pounds per capita</b>	5,951 tons of electronics recycled in 2016
<b>Mercury thermostats</b>	Number of mercury thermostats recycled – <b>5240</b>	Estimated pounds of mercury release prevented: 2016 – 35.8 pounds Since 2001 – 481 pounds <sup>2</sup>
<b>Mercury lamps</b>	Percent of available household lamps recycled – <b>Manufacturers – 11.26%</b> <b>Overall – 28.59%</b>	Estimated pounds of mercury release prevented in 2016: Manufacturers – 5.6 pounds Overall – 14.6 pounds
<b>Architectural Paint</b>	Percent population within 15 miles of a permanent collection site – <b>95.3%</b>	109,267 gallons of latex and oil-based paint collected for recycling and fuel blending in FY 2017

<sup>1</sup> Reporting of materials marketed and recycled as part of this program is not required.

<sup>2</sup> Assuming an average of 3.1 grams per thermostat

## **A. BEVERAGE CONTAINER REDEMPTION PROGRAM – 38 M.R.S §§ 3101 - 3117**

The Department began administering Maine's Beverage Container Redemption, or "Bottle Bill", Program in November 2015. Major administrative responsibilities include licensing of redemption centers, processing of beverage container annual label registrations (ensuring redemption values are clearly marked, and managing data on the parties responsible for pick up and deposit and handling fees on each beverage container), compliance and technical assistance and enforcement.

Because beverage manufacturers and distributors are not required to report on their annual product sales and container redemption deposits claimed, it is not possible to develop a quantitative assessment on the performance of the program.

Along with fulfilling its administrative responsibilities, in 2016 and 2017 the Department undertook several initiatives to improve efficiencies in both administrative and the on-the-ground redemption/recycling systems. This included:

- assisting over 200 small retailers in transitioning from licensing as redemption centers to a no-cost alternative compliance option;
- completing rule revisions that clarify responsibilities and streamline label registration requirements;
- hosting several meetings with stakeholders to discuss ideas and opportunities for developing greater efficiencies in container handling, transportation and auditing procedures; and
- working with InforME to develop an on-line product label registration portal that replaces paper submittals for 36,000+ labels (implemented 12/4/17), and that will interface with BABLO's product registration portal to provide one-stop services for manufacturers and distributors of liquor products in Maine.<sup>3</sup>

Additionally, the Legislature's Government Oversight Committee (GOC) assigned the Office of Program Evaluation and Government Accountability (OPEGA) to conduct a review of Maine's Container Redemption Program, which is expected to be completed in 2018. Based on OPEGA's report, the GOC may choose to introduce legislation proposing changes to this program.

## **B. RECHARGEABLE BATTERIES – 38 M.R.S. § 2165**

Manufacturers of nickel cadmium and small sealed lead acid batteries must provide recycling services at no cost to government agencies, and industrial, communications and medical facilities, which are required to recycle these batteries. In response to this and similar laws battery manufacturers established the Rechargeable Battery Recycling Corporation (RBRC) in 1996. This program, now known as Call2Recycle, offered free rechargeable battery collection and recycling to any interested business, government entity and retail location until mid-2017.

In 2016, there were 122 publicly-accessible (retail and municipal) and 80 private business locations across Maine that actively participated in the Call2Recycle program. Call2Recycle voluntarily

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<sup>3</sup> [InforME](#) is a public/private partnership formed as a result of the 1997 [InforME Electronic Access to Public Information Act](#) to create "a portal network to public information"; it provides an "Internet gateway for businesses and citizens to interact with government electronically".

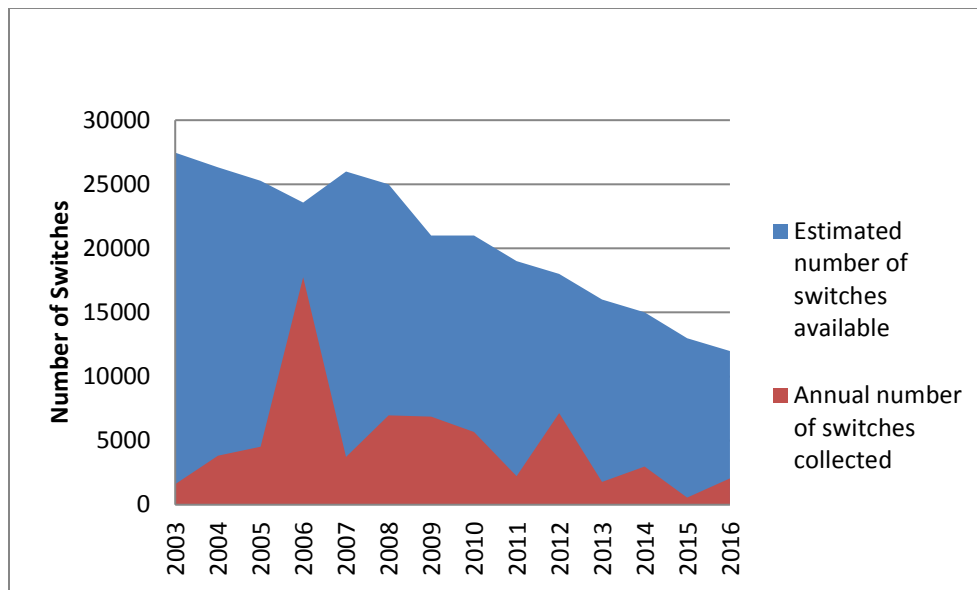
reported that Maine participants collected and recycled 31,561 pounds of all types of rechargeable batteries (nickel cadmium, lithium ion, nickel metal hydride and sealed lead acid) in 2016 (a slight decrease from the 37,476 pounds collected in 2015). Since reporting of sales is not required, it is not possible to assess what percent of rechargeable batteries this represents.

In recent years, Call2Recycle has reported an increase in the cost of "free riders" in its battery recycling program. "Free riders" are primary and rechargeable battery manufacturers whose products are collected and recycled by Call2Recycle, but who do not pay for the recycling of their batteries. U.S. manufacturers (e.g., Duracell, Energizer, Stanley Black & Decker, Samsung, Dell and HP) that support the Call2Recycle program are paying a cost not borne by those other manufacturers (often overseas) who profit from placing the batteries into commerce. Due to this increase in costs, Call2Recycle now limits participation in its free rechargeable battery recycling program to municipal collection sites and businesses only as required by state laws.

**C. MERCURY AUTO SWITCHES - 38 M.R.S. § 1665-A**

38 M.R.S.A § 1665-A, was passed in 2001 and the program began in 2003. It requires end-of-life vehicle handlers to remove and recycle all mercury switches. The law also requires manufacturers to provide a free recycling system, including a four-dollar (\$4.00) incentive payment when the person turning in the switches provides information on the vehicles from which the switches have been removed.

**Figure 1 – Mercury auto switch collections in Maine over time**



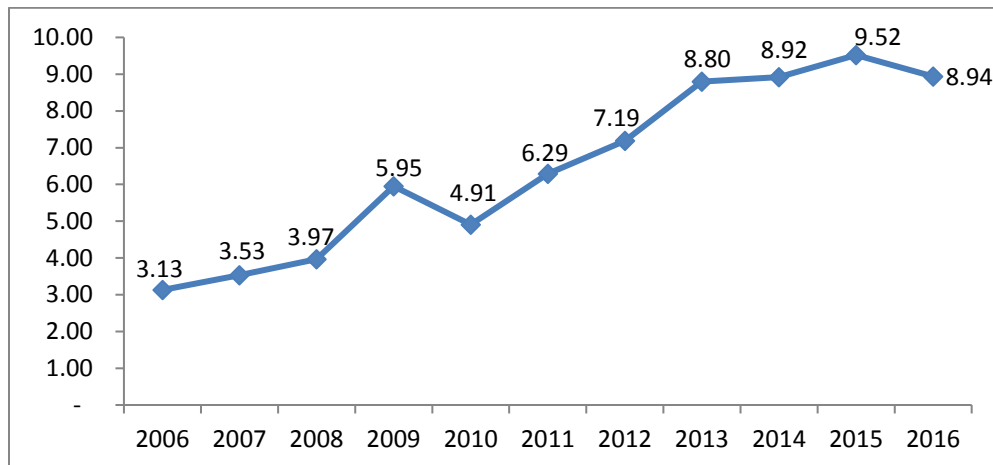
**Current performance:** In 2016, 2053 mercury auto switches containing 4.53 pounds of mercury were recycled through the program. This represents 17.11% of the switches estimated to have been available for recycling from end-of-life vehicles in 2016 in Maine. The sharp increase in collections in 2016 compared to 2015 correlates with an increase in targeted outreach to end-of-life vehicle handlers by DEP staff. Since 2003, the program has prevented the release of 149.28 pounds of mercury to the environment.

The National Vehicle Mercury Switch Recovery Program (NVMSRP) estimates that there will be 10,000 switches containing approximately 20 pounds of mercury in the cars that will be removed from service in Maine in 2017.<sup>4,5</sup> These estimates (which NVMSRP asserts underestimate the actual number of switches available<sup>6</sup>) suggest that the program has captured between 20 and 30% of the switches available since its inception.

**D. CONSUMER ELECTRONICS - 38 M.R.S. § 1610**

Since Maine’s *Electronic Waste* law was passed in 2005, over 95 million pounds of Covered Electronic Devices (CEDs) have been collected and recycled. More than 75 million of those pounds were recycled as part of the extended producer responsibility program; the rest were non-covered products (e.g., desktop computers, peripherals), or collected by voluntary initiatives such as the Dell-Goodwill Re-Connect partnership.<sup>7</sup> In 2016, Mainers recycled 11,902,232 pounds of electronics, or about 8.9 pounds per person, down from 9.5 pounds per person in 2015. This decrease in total pounds of covered electronic devices recycled is likely due to a decrease in the weight of the units being recycled and consumers’ move toward smaller, portable devices and away from heavier cathode ray tube (CRT) monitors and TVs to flat panel monitors and TVs.

**Figure 2 – Pounds of electronics recycled per capita in Maine**



**Recommendation for changes to statute:** In the [Implementing Product Stewardship in Maine: January 2017](#) report, the Department recommended that the Legislature consider changing the basis on which information technology (IT) product manufacturers are billed for recycling costs from return share to market share. Billing for the recycling of covered electronic devices in Maine's is currently done in two different ways based on statutory requirements: the IT portion of the waste stream is

<sup>4</sup> This weight number assumes an average of .035 g of mercury per switch, which is the calculation used by NVMSRP.

<sup>5</sup> National Vehicle Mercury Switch Removal Program, “Estimating Population of Mercury Convenience Light Switches”, available at: [http://elvsolutions.org/?page\\_id=1298](http://elvsolutions.org/?page_id=1298), accessed October 31, 2016.

<sup>6</sup> National Vehicle Mercury Switch Removal Program, “Estimating Population of Mercury Convenience Light Switches”, available at: [http://elvsolutions.org/?page\\_id=1298](http://elvsolutions.org/?page_id=1298), accessed October 31, 2016.

<sup>7</sup> See <http://www.dell.com/learn/us/en/uscorp1/corp-comm/us-goodwill-reconnect?c=us&l=en&s=corp>.



based on the actual weight of a manufacturer's product recycled, while televisions and game consoles are billed on a recycling share percentage basis assigned proportional to national market share. Billing based on actual weight of each individual manufacturer's products in the waste stream drives significantly greater costs for both the Department and the businesses managing the recycling. Eliminating the need to weigh, track and bill for each individual IT unit in favor of net weight billing based on market-based recycling shares will streamline the required handling into one simpler system and result in a decrease in costs for labor, storage, and administration.

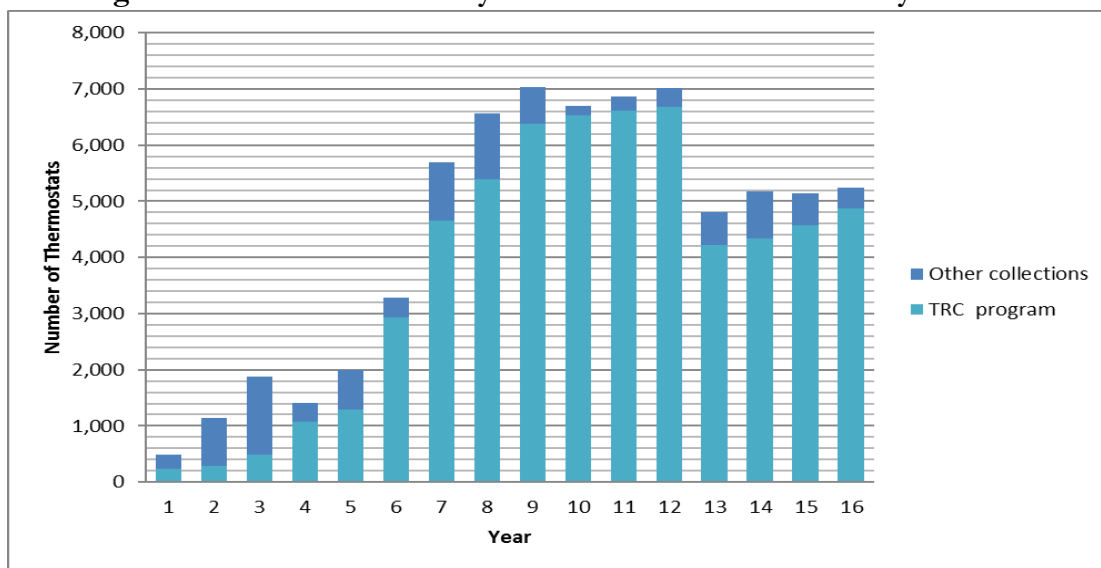
This change will align Maine's program more closely with other states' programs, eliminating a cause for confusion for manufacturers seeking to comply with multiple differing state laws. In addition, the Department recommends that the due date for manufacturer annual registrations be changed from July 1<sup>st</sup> to April 1<sup>st</sup>. This will provide additional time for the Department to perform any needed compliance assistance and to develop the datasets necessary for determining manufacturers' recycling responsibilities for the next calendar year. Draft legislation to accomplish these changes is included as Appendix A.

**E. 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 5240 mercury thermostats were collected in 2016 (4873 by TRC and 367 through universal waste management), up from 5142 in 2015 (4571 by TRC and 571 through universal waste management). Since 2001, a total of 481 pounds of mercury has been recovered through thermostat recycling efforts in Maine.<sup>8</sup>

**Figure 3 - Number of mercury thermostats collected annually in Maine**



<sup>8</sup> Department staff recently reviewed all historic data provided by TRC. An average of 3.1 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.

Average annual collections remain at around 5,000 thermostats per year, consistently at least 40 % higher than the rates achieved before the \$5 incentive was implemented. As was recommended in the *Implementing Product Stewardship in Maine* report submitted to the Legislature in February 2016, the manufacturers moved forward with simplifying their financial incentive payment system for wholesaler and contractor locations. Implementation of these changes began in October of 2016, with the changes fully in place by mid-year.

**F. MERCURY LAMPS - 38 M.R.S. § 1672**

**Program description:** The manufacturer requirements for recycling of mercury-added lamps (fluorescent & 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 education & outreach to let consumers know about the program.

**Current performance:** NEMA collected and recycled 151,434 mercury-added lamps through its product stewardship program in Maine in 2016. Although this is an increase in the number of lamps collected by the NEMA program in comparison with the 135,035 collected in 2015, it is a 0.72% decrease in the recycling rate, i.e., the percentage recycled of lamps estimated to be at end of life.

**Table 2– Household Mercury-added Lamp Recycling Rates**

	# NEMA collection sites	# lamps recycled by NEMA	# lamps recycled by others	# lamps available for recycling	household lamp recycling rate	NEMA recycling rate
2011	149	6,634	163,196	688,000	24.68%	0.96%
2012	263	50,492	155,159	708,889	29.01%	7.12%
2013	293	97,743	149,191	844,576	29.24%	11.57%
2014	300	109,337	128,859	1,042,750	22.84%	10.49%
2015	307	135,035	244,791	1,127,500	33.69%	11.98%
2016	270*	151,434	233,152	1,344,991	28.59%	11.26%

\*151 of these sites sent lamps for recycling in 2016

In its report on 2016 calendar year activities, NEMA stated: “As part of the 2017 advertising campaign, NEMA staff will work to revamp the existing advertisement and the door signs available to collection sites, to make the ads more vibrant and attention grabbing.” NEMA had not followed through on this commitment as of mid-December 2017. In addition, NEMA has not completed updates of documents, e.g., NEMA’s *Municipal Participation Agreement*, that were agreed to at a meeting in May 2017 with DEP staff. Also, DEP staff has consistently found it needs to follow-up with reminders to ensure NEMA responds to submissions of completed participation agreements to activate new collection sites, and to existing collection site requests for additional collection boxes.

## **G. 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 the Extended Producer Responsibility (EPR) laws. Currently these laws are 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 to participating retail and municipal collection sites, and to municipally-offered household hazardous waste (HHW) collection events that partner with PaintCare, at no cost. 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.

**Current performance:** PaintCare reports on a fiscal year (July 1 – June 30) basis. In FY 2017 (July 1, 2016 – June 30, 2017), PaintCare collected and processed 109,267 gallons of postconsumer paint. 100% of the oil-based paint was used as fuel. 83% of the collected latex was made into recycle-content paint; 17%, however, was unrecyclable and sent to landfills for disposal; these percentages were unchanged from the previous reporting period. In addition, 51 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 95.3% of Maine's population, exceeding the 90% goal set in statute. The current fees at sale appear to be adequate to fund the program going forward.

## **III. Conclusion**

Maine's EPR programs for certain consumer items continue to successfully divert substantial quantities of materials from disposal to recycling, and to prevent the release of significant quantities of mercury to Maine's environment. Based on the experience gained in these programs, the Department is recommending that the Legislature amend 38 M.R.S. § 1610 to simplify handling and tracking processes for IT-related covered electronic devices. This is expected to reduce costs for manufacturers and Maine electronics-related recycling businesses, decrease the number of manufacturers subject to the law, and reduce the amount of time Department staff spend on compliance assistance and administration.

## APPENDIX A – PROPOSED CHANGES TO MAINE'S *ELECTRONIC WASTE LAW*

38 MRS § 1610 is amended to read:

### §1610. ELECTRONIC WASTE

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

A. ~~"Computer monitor" means a covered electronic device that is a cathode ray tube or flat panel display primarily intended to display information from a central processing unit or the Internet. "Computer monitor" includes a digital picture frame.~~

B. "Consolidation facility" means a facility where electronic wastes are consolidated and temporarily stored while awaiting shipment of at least a 40-foot trailer full of covered electronic devices to a recycling, treatment or disposal facility. "Consolidation facility" includes a transport vehicle owned or leased by a consolidator and used to collect covered electronic devices at collection sites in this State at a cost no greater than the per pound transportation rate for a full 40-foot trailer as approved by the department for each consolidator pursuant to the rules governing reasonable operational costs adopted under subsection 5, paragraph D, subparagraph (1).

B-1. "Consolidator" means a person that provides consolidation and handling services for electronic wastes and that operates at least one consolidation facility.

B-2. "Covered entity" means a household in this State, a business or nonprofit organization exempt from taxation under the United States Internal Revenue Code, Section 501(c)(3) that employs 100 or fewer individuals, a primary school or a secondary school.

C. "Covered electronic device" means ~~a computer central processing unit,~~ a desktop printer, a video game console, a cathode ray tube, a cathode ray tube device, ~~and a flat panel display or similar video display~~ consumer electronic device with a display screen that is greater than 4 inches measured diagonally and that contains one or more circuit boards. "Covered electronic device" does not include: ~~an automobile; a household appliance; a large piece of commercial or industrial equipment, such as commercial medical equipment, that contains a cathode ray tube, a cathode ray tube device, a flat panel display or similar video display device that is contained within, and is not separate from, the larger piece of equipment; or other medical devices as that term is defined under the Federal Food, Drug, and Cosmetic Act; or a cellular telephone subject to section 2143.~~

C-1. "Desktop printer" means a device weighing 100 pounds or less that prints text or illustrations on paper or 3-dimensional objects, and that is designed for external use with a desktop or portable computer. "Desktop printer" includes, but is not limited to, a daisy wheel, dot matrix, inkjet, laser, LCD and LED line or thermal printer, including a device that performs other functions in addition to printing such as copying, scanning or transmitting a facsimile.

D. "Manufacturer" means a person who:

- (1) Manufactures or has manufactured a covered electronic device under its own brand or label;
- (2) Sells or has sold under its own brand or label a covered electronic device produced by other suppliers;
- (3) Imports or has imported a covered electronic device into the United States that is manufactured by a person without a presence in the United States; or
- (4) Owns a brand that it licenses or licensed to another person for use on a covered electronic device.

D-1. "Market share" means a manufacturer's national sales of a covered electronic device expressed as a percentage of the total of all manufacturers' national sales for that category of covered electronic devices.

E. "Municipal collection site" means a municipally owned solid waste transfer station or recycling center, including a facility owned by a consortium of municipalities or a facility that is under contract with a municipality or consortium of municipalities to provide solid waste management services.

F. [2011, c. 250, §4 (RP).]

~~G. "Orphan waste" means a covered electronic device, excluding a video game console and a television, the manufacturer of which cannot be identified or is no longer in business and has no successor in interest.~~

H. "Recycling" means the use of materials contained in previously manufactured goods as feedstock for new products, but not for energy recovery or energy generation by means of combustion.

I. "Recycling and dismantling facility" means a business that processes covered electronic devices for reuse and recycling.

J. "Retailer" means a person who sells or provides a platform for the sale of a covered electronic device in the State to a consumer. "Retailer" includes, but is not limited to, a manufacturer of a covered electronic device who sells directly to a consumer through any means, including, but not limited to, transactions conducted through sales outlets, catalogs or the Internet, or any similar electronic means, but not including wholesale transactions with a distributor or other retailer.

~~K. "Television" means a covered electronic device that is a cathode ray tube or flat panel display primarily intended to receive video programming via broadcast, cable or satellite transmission or video from surveillance or other similar cameras.~~

L. "Video game console" means an interactive entertainment computer or electronic device that produces a video display signal that can be used with a display device such as a television or computer monitor to display a video game.

**5. Responsibility for recycling.** Municipalities, consolidators, manufacturers and the State share responsibility for the disposal of covered electronic devices as provided in this subsection.

A. Each municipality that chooses to participate in the state collection and recycling system shall ensure that ~~computer monitors, televisions, desktop printers and video game consoles~~ covered electronic devices generated as waste from covered entities within that municipality's jurisdiction are delivered to a consolidation facility in this State. A municipality may meet this requirement through collection at and transportation from a local or regional solid waste transfer station or recycling facility, by contracting with a disposal facility to accept waste directly from the municipality's residents or through curbside pickup or other convenient collection and transportation system.

A-1. A covered entity may deliver no more than 7 covered electronic devices at one time to a municipal collection site or consolidator collection event, unless the municipal collection site or consolidator is willing to accept additional covered electronic devices.

B. A consolidator is subject to the requirements of this paragraph.

~~(1) A consolidator shall identify the manufacturer of each waste computer monitor and desktop printer delivered to a consolidation facility and identified as generated by a covered entity in this State and shall maintain an accounting of the number of waste computer monitors and desktop printers by manufacturer. By March 1st each year, a consolidator shall provide this accounting by manufacturer to the department.~~

(1-A) A consolidator shall maintain a written log of the total weight of ~~televisions and video game consoles~~ each type of covered electronic device delivered each month to the consolidator and identified as generated by a covered entity in the State. By March 1st each year, a consolidator shall provide this accounting to the department.

~~(2) A consolidator may perform the manufacturer identification required by subparagraph (1) at the consolidation facility or may contract for this identification and accounting service with the recycling and dismantling facility to which the covered electronic devices are shipped.~~

(3) A consolidator shall work cooperatively with manufacturers to ensure implementation of a practical and feasible financing system with costs calculated ~~for televisions~~ each product category sold in the State multiplied by the total pounds recycled ~~and with costs calculated for video game consoles on a basis proportional to the~~

~~manufacturer's national market share of video game consoles in the State multiplied by the total pounds recycled.~~ At a minimum, a consolidator shall invoice the manufacturers for the handling, transportation and recycling costs for which they are responsible under the provisions of this subsection.

(4) A consolidator shall transport ~~computer monitors, televisions, desktop printers and video game consoles~~ covered electronic devices to a recycling and dismantling facility that provides a sworn certification pursuant to paragraph C. A consolidator shall maintain for a minimum of 3 years a copy of the sworn certification from each recycling and dismantling facility that receives covered electronic devices from the consolidator and shall provide the department with a copy of these records within 24 hours of request by the department.

C. A recycling and dismantling facility shall provide to a consolidator a sworn certification that its handling, processing, refurbishment and recycling of covered electronic devices meet guidelines for environmentally sound management published by the department.

D. ~~Computer monitor, television, desktop printer and video game console~~ Covered electronic device manufacturers are subject to the requirements of this paragraph.

(1) ~~Each computer monitor manufacturer and each desktop printer manufacturer is individually responsible for handling and recycling all computer monitors and desktop printers that are produced by that manufacturer or by any business for which the manufacturer has assumed legal responsibility, that are generated as waste by covered entities in this State and that are received at consolidation facilities in this State. In addition, each computer manufacturer is responsible for a pro rata share of orphan waste computer monitors and each desktop printer manufacturer is responsible for a pro rata share of orphan waste desktop printers generated as waste by covered entities in this State and received at consolidation facilities. The Manufacturers shall pay the reasonable operational costs of the consolidator attributable to the handling of all computer monitors, televisions, desktop printers and video game consoles covered electronic devices received at consolidation facilities in this State, the transportation costs from the consolidation facility to a licensed recycling and dismantling facility, and the costs of recycling. "Reasonable operational costs" includes the costs associated with ensuring that consolidation facilities are geographically located to conveniently serve all areas of the State as determined by the department. The recycling of televisions each type of covered electronic device must be funded by allocating the cost of the program among the manufacturers selling televisions in the State on a basis proportional to the manufacturer's national market share of televisions the covered electronic device type. The department shall annually determine each television manufacturer's recycling share based on readily available national market share data. If the department determines that a television manufacturer's market share is less than 1/10 of 1%, the department may determine that market share de minimus. A television manufacturer whose market share is determined de minimus by the department is not responsible for payment of a pro rata share of televisions for the corresponding billing year. The total market shares determined de minimus by the department must be proportionally allocated to and paid for by the television manufacturers that have 1/10 of 1% or more of the market of each type of covered electronic device. The recycling of video game consoles must be funded by allocating the cost of the program among the manufacturers selling video game consoles in the State on a basis proportional to the manufacturer's national market share of video game consoles. The department shall annually determine each video game console manufacturer's recycling share based on readily available national market share data. If the department determines that a video game console manufacturer's market share is less than 1/10 of 1%, the department may determine that market share de minimus. A video game console manufacturer whose market share is determined de minimus by the department is not responsible for payment of a pro rata share of video game consoles for the corresponding billing year. The total market shares determined de minimus by the department must be proportionally allocated to and paid for by the video game console manufacturers that have 1/10 of 1% or more of the market.~~

(2) Each ~~computer monitor manufacturer, television manufacturer, desktop printer manufacturer and video game console manufacturer~~ shall work cooperatively with consolidators to ensure implementation of a practical and feasible financing system. Within 90 days of receipt of an invoice, a manufacturer shall reimburse a consolidator for allowable costs incurred by that consolidator.

E. Annually by January 1st the department shall provide manufacturers ~~of computer monitors and desktop printers and consolidators with a listing of each manufacturer's pro rata share of orphan waste computer~~

~~monitors and desktop printers. The department shall determine each manufacturer's pro rata share based on the best available information, including but not limited to data provided by manufacturers and consolidators and data from electronic waste collection programs in other jurisdictions within the United States. Annually, the department shall also provide manufacturers of televisions and consolidators with a listing of each television manufacturer's proportional market share responsibility for the recycling of televisions covered electronic devices for the subsequent calendar year. Annually by January 1st, the department shall also provide manufacturers of video game consoles and consolidators with a listing of each video game console manufacturer's proportional market share responsibility for the recycling of video game consoles for the subsequent calendar year.~~

**6-A. Manufacturer registration.** Prior to offering a covered electronic device and by ~~July~~April 1st annually, a manufacturer that offers or has offered ~~a computer monitor or desktop printer, or offers or has offered~~ within the preceding calendar year a ~~television or video game console~~covered electronic device for sale in or into this State shall submit a registration to the department. The annual registration must include:

- A. The name, contact and billing information of the manufacturer;
- B. The manufacturer's brand name or names and the type of ~~televisions, video game consoles, computer monitors and desktop printers~~covered electronic device on which each brand is used, including:
  - (1) All brands sold in the State in the ~~past~~preceding calendar year; and
  - (2) All brands currently being sold in the State;
- C. When a word or phrase is used as the label, the manufacturer must include that word or phrase and a general description of the ways in which it may appear on the manufacturer's electronic products;
- D. When a logo, mark or image is used as a label, the manufacturer must include a graphic representation of the logo, mark or image and a general description of the logo, mark or image as it appears on the manufacturer's electronic products;
- E. The method or methods of sale used in the State;
- F. Annual national sales data on the weight, number and type of ~~computer monitors, televisions, desktop printers and video game consoles~~covered electronic devices sold by the manufacturer in this State over the 5 years preceding the filing of the plan. The department may keep information submitted pursuant to this paragraph confidential as provided under section 1310-B;
- G. The manufacturer's consolidator handling option for the next calendar year, as selected in accordance with rules adopted pursuant to subsection 10; and
- H. A registration fee paid by a manufacturer as follows:
  - (1) Seven hundred and fifty dollars for manufacturers with less than 0.1% national market share as determined by the department based on the most recent readily available national market share data; and
  - (2) Three thousand dollars for all other manufacturers, ~~except that computer monitor and desktop printer manufacturers that have not marketed any covered electronic device in the current calendar year and have had less than 50 units managed by approved consolidators in the preceding 3 years are exempted from paying the fee.~~

A manufacturer's annual registration filed subsequent to its initial registration must clearly delineate any changes in information from the previous year's registration. Whenever there is any change to the information on the manufacturer's registration, the manufacturer shall submit an updated form within 14 days of the change. Registration fees collected by the department pursuant to this subsection must be deposited in the Maine Environmental Protection Fund established in section 351.

**7. Enforcement; cost recovery.** The department must enforce this section in accordance with the provisions of sections 347-A and 349. If a manufacturer fails to pay for the costs allocated to it pursuant to subsection 5, paragraph D, subparagraph (1), ~~including, for a computer monitor manufacturer and a desktop printer manufacturer, its pro rata share of costs attributable to orphan waste,~~ the department may pay a consolidator its legitimate costs from the Maine Solid Waste Management Fund established in section 2201 and seek cost recovery from the

nonpaying manufacturer. Any nonpaying manufacturer is liable to the State for costs incurred by the State in an amount up to 3 times the amount incurred as a result of such failure to comply.

The Attorney General is authorized to commence a civil action against any manufacturer to recover the costs described in this subsection, which are in addition to any fines and penalties established pursuant to section 349. Any money received by the State pursuant to this subsection must be deposited in the Maine Solid Waste Management Fund established in section 2201.





**National Electrical Manufacturers Association**  
1300 North 17<sup>th</sup> Street, Suite 900  
Rosslyn, VA 22209  
703-841-3249  
Fax: 703-841-3349  
mar\_kohorst@nema.org

**DATE:** February 9, 2018  
**TO:** George MacDonald, Director  
Bureau of Remediation and Waste Management  
Maine Department of Environmental Protection  
**FROM:** The National Electrical Manufacturers Association (NEMA)  
**RE:** NEMA Comments on Maine DEP Report, “Implementing Product Stewardship in Maine,” dated January 2018

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The National Electrical Manufacturers Association (NEMA) is the primary trade association representing the interests of the US electrical products industry. Our nearly 325 member companies manufacture products used in the generation, transmission, distribution, control, and end-use of electricity, constituting the very foundation of the worldwide infrastructure for supplying power.

Most electro-industry products are long lived and used in commercial and industrial settings. Some, however - such as household lamps, batteries, and thermostats - are consumer oriented and sold primarily for residential applications. Several of these are the focus of product stewardship laws in Maine and our members have a long history of working with Maine legislators and regulatory authorities to implement these laws and the programs they authorize.

Once again, NEMA appreciates the opportunity to comment on the latest version of the Maine Department of Environmental Protection’s (DEP) report on “Implementing Product Stewardship in Maine.” We look forward to continuing discussions with DEP staff on how best to maintain the success of our stewardship programs going forward.

Our comments on the report are limited to the material related to the industry-operated program to collect and recycle mercury-added lamps.

**Section II-F: MERCURY LAMPS - 38 M.R.S. § 1672**

DEP references a statement of intent in NEMA’s 2016 lamp recycling program report to “*work to revamp the existing advertisement and the door signs available to collection sites, to make the ads more vibrant and attention grabbing,*” noting that the program has not followed up on this activity.

NEMA did evaluate this potential advertising ‘upgrade’ but determined later in the year that funds were not available within the program’s budget to accomplish the task. This was largely due to costs incurred by increased lamp collections, which rose 12% in 2016. The higher recycling costs forced the program to delay its plans to update outreach materials until the next

budget cycle. Funds have been allocated to do this in 2018 to undertake this task and NEMA looks forward to keeping DEP staff updated on our progress.

With that in mind, NEMA proposes arranging a regular monthly call with DEP staff to avoid a recurrence of communication gaps that occurred in the past. Convening this call at a mutually agreeable time each month would facilitate regular discussion of program activities such as new program sites and the need for additional collection boxes, as well as any concerns that either side wishes to address. We encourage DEP staff to consider this proposal as a step toward more effective communication.

Please contact us at your convenience if you have questions or concerns about these comments.

**Contact**

Mark Kohorst  
Senior Manager, Environment, Health & Safety  
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[mar\\_kohorst@nema.org](mailto:mar_kohorst@nema.org)



**Converting electronic ‘waste’ to significant customer, environmental and community benefit.**

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2/11/2018

To: George MacDonald, Maine DEP

Re: Comments to ‘Implementing Product Stewardship in Maine, January 2018’

To Whom It May Concern,

The process of sorting, recording and reporting materials for Option 1 manufacturers of consumer electronics is very burdensome, while the processes used for televisions (market share) is simple and efficient.

Our operating costs would go down significantly if all electronic program materials (televisions, consumer electronics) were recorded, sorted, stored and shipped using the ‘market share’ model. We provide community recycling for the entire Greater Waterville area and hope the legislature considers this recommendation and changes the ‘Option 1’ model to ‘Market Share’.

Thank You,

**Chris Martin**

Director of SKILLS’ eWaste Alternatives

(207) 322-6257

cmartin@skillsinc.net



February 12, 2018

George MacDonald  
Maine DEP  
17 State House Station  
Augusta, ME 04333-0017

The Natural Resources Council of Maine is pleased to provide comments on the DEP's 2018 report, *Implementing Product Stewardship in Maine*. NRCM has worked with the DEP and members of the Maine Legislature to implement the product stewardship laws reviewed in this report, and we are pleased to see the excellent description of benefits and positive performance for most of the individual programs.

Our specific comments are as follows:

- We are concerned that the mercury lamp program seems to be underperforming as evidenced by the decline in recycling rate. We believe the National Electrical Manufacturers Association (NEMA) could make changes that would improve collection rates, and should always follow through with commitments made to the department. We urge you to consider amending the law to include a mechanism to enforce better performance if a certain recycling rate target is not achieved.
- We continue to be concerned about the problem of free-riders in the Call2Recycle rechargeable battery recycling program. The Legislature's failure to pass an all-battery recycling law is undermining the success of our current program and is causing unintended consequences for Call2Recycle. In 2016, the Committee unanimously voted in favor of *LD 1578, An Act to Update Maine's Solid Waste Management Laws*, which would have solved this problem but the bill did not receive a vote in the full Legislature. LD 1578 was supported by the battery industry, environmental community, local government, and waste disposal facilities. We strongly urge the Committee, Department and the Legislature to move that language forward once more so we can solve the free-rider problem and give Mainers a convenient solution for what to do with all of their single-use alkaline batteries, and not just rechargeable batteries.
- The report provides excellent information about the continued success of Maine's beverage container redemption program, and we are pleased to see that data presented alongside Maine's other product stewardship programs. We urge the Legislature to add additional container types to the program which would financially help redemption centers and municipalities; and divert more materials into a recycling program that would increase the quality of the recycled commodities.
- We support the proposed amendment to Maine's electronic waste recycling program, 38 M.R.S. § 1610. We agree with the department that the changes will simplify handling and

tracking processes for IT-related covered electronic devices to match market-based recycling shares for the rest of the covered electronics. We agree it will simplify the program and reduce costs for manufacturers and Maine electronics-related recycling businesses, and save significant staff time at DEP. We do not think this will have any impact on public participation in the program, which we feel has been quite positive.

- We believe that there are more product categories that DEP could consider adding to Maine's product stewardship programs, such as programs to address mattresses, pharmaceuticals, and packaging. Further, we believe that there is a need to address film plastic in particular, because the material currently does not get moved through our municipal recycling infrastructure and often ends up in landfills or incinerators. Boat wrappings, agricultural film plastics, and pellet bags also are proving to be challenging to recycle without a Statewide coordinated effort, or financial support from the producer. We would be glad to work with the Department on additional product categories for consideration by the Legislature.

We appreciate the opportunity to provide these comments, and request that they be submitted to the Legislature with the 2018 report.

Sincerely,

A rectangular box containing a handwritten signature in cursive script that reads "Sarah Lakeman".

Sarah Lakeman  
Sustainable Maine Project Director



February 12, 2018

Mr. George MacDonald  
Director, Bureau of Land Resources  
Maine DEP  
17 State House Station  
Augusta, ME 04333-0017

Mr. MacDonald,

On behalf of the members of the Product Management Alliance (PMA), we appreciate the opportunity to express the Product Management Alliances' position on the Department of Environmental Protection's Report to the Joint Standing Committee on Environment and Natural Resources, 128th Legislature, Second Session, Concerning the Implement of Product Stewardship in Maine.

My name is Kevin Canan, and I serve as the Executive Director of the PMA. By way of introduction, the PMA is a coalition comprised of trade associations and corporations that represent a broad array of consumer products. Our mission is to support market-based extended producer responsibility (EPR) efforts, as well as voluntary incentives for increased recovery and sustainable products and package design. We were founded precisely as a response to the signing of LD 1631 into law in 2010, the law which compels this report.

PMA's members have long strived to voluntarily recover the products that they manufacture. The PMA understands and appreciates Maine's desire to seek ways to improve the recovery rates of goods. However, we believe that expanding current EPR programs and adding additional EPR programs for additional products, specifically the carpet and mattress industries enumerated in the report, would simply add costly and unnecessary mandates for both the state government to implement and run this program; as well as for retailers and manufacturers in Maine. These costs will ultimately be borne by taxpayers and consumers.

Additional EPR programs would set up a confusing and bureaucratic system of recovery for the residents of the state with similar types of products having very different end-of-life recovery schemes. In addition, these types of restrictive programs would likely to have a chilling effect on manufacturers and retailers doing business in Maine, and as a result business very well could be lost to neighboring states.

PMA members and businesses utilize sophisticated programs in place that continue to increase the amounts of products recovered and recycled through voluntary initiatives. Today recovery rates are at record levels, and they are continually striving to increase these numbers. The existence of these efforts illustrate that new mandates on producers are not necessary to reduce waste and increase recycling and the use of recycled content. Thus, we urge the DEP and the legislature to **strongly examine voluntary, market-based recovery efforts** for increased recovery of products and oppose any further expansion of EPR in the state.

The members of the PMA, and the industries they represent, recognize the desire of the public and policymakers for environmentally responsible business practices. That is why our member companies are voluntarily involved in waste recovery programs, and support recycling where it is economically and logistically feasible.

We hope to have a positive and constructive working relationship with you.

Sincerely,

A handwritten signature in blue ink, appearing to read 'KCC', with a long horizontal flourish extending to the right.

Kevin C. Canan  
Executive Director

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# MAINE BEVERAGE ASSOCIATION

77 SEWALL STREET, SUITE 3000 | AUGUSTA, MAINE 04330  
P: 207-622-3747 F: 207-622-9732

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To: George MacDonald, Maine DEP  
17 State House Station, Augusta, ME 04333-0017

From: Newell A. Augur, Executive Director

Re: Comments to Implementing Product Stewardship in Maine, January 2018

Date: February 12, 2018

On behalf of the Maine Beverage Association, the trade group representing Coca Cola Northern New England, Pepsi Beverage Company, Poland Spring and Polar - the local distributors of regular and diet beverages, water, juices and sports drinks, among other refreshing non-alcoholic products - thank you for the opportunity to provide comment on the report, Implementing Product Stewardship in Maine, January 2018. Our remarks are specific to that portion of the report addressing Maine's beverage container redemption law, also known as the bottle bill. These comments are similar to those our association offered with respect to last year's report.

### ***The bottle bill is not a Product Stewardship Program***

The bottle bill should not be classified a product stewardship program. It is a mandate that forces the use of a particular delivery and pickup model for certain beverage packages. The model is designed to replicate the operation of a refillable-based system for bottles – a delivery system broadly rejected by consumers nearly 40 years ago. An authentic product stewardship program would include all producers selling any beverages in any packages; Maine's bottle bill excludes all milk and milk derivatives, certain cider and blueberry juices, a number of other specialty products, and several additional categories of beverage packaging.

Moreover, product stewardship is epitomized by the flexibility it gives producers to address the lifecycle impacts of their products. Producers design and manage their own collection and processing programs to fulfill that responsibility. Government sets goals and performance standards, and producers determine the most cost-effective means of achieving those targets. Beyond that, product stewardship programs operate with minimal government involvement.

In marked contrast, the bottle bill is proscriptive, not cost-effective, limits producer flexibility, and has significant government involvement.



***The redemption rate in Maine is 70-75% when discounted for fraud***

Table 1 at page 2 of the report estimates the recycling rate for beverage containers in Maine at “80 to 90%.” As we noted in our comments last year, this estimate is incorrect. The actual redemption rate in Maine is closer to 70-75% when discounted for bottle bill fraud.

Fraud is an endemic with every bottle bill. It is especially problematic in Maine because our only bordering state has no bottle bill. Bottle bill fraud comes in many forms: bad actors who bring truckloads of pre-sorted containers from New Hampshire and Massachusetts; Maine residents who shop in New Hampshire and then collect a deposit that they never paid in the first place; redemption centers that inadvertently, or deliberately, short the bags they present to distributors for pick up. Each fraudulent container costs up to 9 cents – the nickel deposit and the handling fee.

Bottle bill fraud costs Maine distributors – and ultimately Maine consumers – approximately \$7 million each year. Our members do regular internal audits and we believe this is a conservative estimate. Our redemption rate for the months of August and September in the Southern part of the state is consistently higher than 110%. That means for every 100 containers we sell, we pay deposit and handling fees on 110.

As the report notes, distributors are not required to provide reports regarding marketed and recycled materials. However, the members of the Maine Beverage Association have provided this information on several occasions at the request of the Department of Agriculture and, within the last six months, the Office of Program Evaluation and Government Accountability as part of its current evaluation of the bottle bill.

The inflated recycling figure has been advanced by, among others, the Container Recycling Institute.<sup>1</sup> This advocacy group, based in California, is funded largely by glass manufacturers that historically have advocated for bottle bills as a way to reduce their cost to process material. Rather than paying to clean glass recycled through municipal systems, the glass companies support bottle bills, thereby shifting that burden - and that cost - to beverage distributors and our customers.

We would ask that this report be amended to acknowledge the extent of bottle bill fraud. Going forward, we hope the Department seek input from local distributors regarding bottle bill fraud or make note of the information previously provided to State Government agencies. This would result in a more accurate estimate of the actual recycling rate, net of bottle bill fraud, as opposed to relying on an out-of-state entity that does not sell or collect containers in Maine and does not have staff in Maine monitoring those operations.

***Department Initiatives***

We appreciate the Department’s efforts to streamline the process by which distributors must register the labels for every beverage product sold in Maine. Previously, distributors were required to provide photocopies of labels for every product sold. The Department has simplified

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<sup>1</sup>This organization was cited as the source of the inflated estimate used in the 2017 Implementing Product Stewardship in Maine report; no source was given in the 2018 report.

this to allow distributors to certify that their product labels are in compliance. The Department also is working to develop an electronic filing system that will facilitate the online registration of products.

### *Conclusion*

Thank you for the opportunity to provide these comments. We would be pleased to provide any additional information in this regard.

**From:** Electronics End, LLC  
**To:** [MacDonald, George](#)  
**Subject:** Product Stewardship Program Opinion  
**Date:** Monday, February 12, 2018 8:26:21 AM

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Dear Members of the Joint Standing Committee on Environment and Natural Resources:

I am the President of Electronics End LLC. in Brewer Maine and we are a licensed facility for processing Universal Waste and E Waste here in Maine. Our corporation urgently needs changes in the Product Stewardship Program to survive. Please consider changing the basis on which information technology product manufacturers are billed for recycling from return share to market share. This would reduce the cost of processing dramatically by eliminating the need to weigh, track and bill for each individual IT unit. Net weight billing based on market share is the only system that will reduce cost and handling and allow us to continue to operation in a low margin business. This billing system works extremely well with TVs and needs to be adopted for printers and monitors.

I and my employees thank you in advance for your consideration of this important change. We look forward to protecting the environment for the future generations with your help and guidance.

Sincerely yours:

Bruce Jacobs  
President

**From:** William Andrews  
**To:** [MacDonald, George](#)  
**Subject:** Re: 2018 Maine DEP Product Stewardship Report... now posted on line  
**Date:** Tuesday, January 16, 2018 2:27:52 PM

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George,

A couple of comments. I am in total support of eliminating the brand sort data, and going to a net market share on IT equipment. A couple things I don't see that might cause to confusion in the manufacturer realm.

Even though it should be obvious, I think there needs to show that the Recycling options (1,2, and 3) that the manufacturers have had in the past, will also be eliminated if the market share was accepted.

Also in Section 6-A, does this take away for some of the finite detail when a manufacturer is registering as far as brands, logo and such. Seems like we would just have to know TV's, printers and monitors as far as what they manufacturer?

Exciting! I wish we could start now!

Thank you,  
billy

William G. Andrews  
North Coast Services  
(207) 812-1391 (direct line)  
bandrews@ncoastllc.com

---

**From:** "MacDonald, George" <George.MacDonald@maine.gov>  
**Date:** Tuesday, January 16, 2018 at 8:56 AM  
**To:** "MacDonald, George" <George.MacDonald@maine.gov>  
**Subject:** RE: 2018 Maine DEP Product Stewardship Report... now posted on line

Good morning...

You are receiving this email because you submitted comments to the 2017 Product Stewardship Report...

Here is the link to the 2018 report... <http://www.maine.gov/dep/comment/comment.html?id=775684>

Submitted comments are due by 5:00 PM, February 12, 2018...

Thank you...

George

George MacDonald  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0017  
(207) 287-2870 (desk)