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# Implementation of Product Stewardship in Maine

Maine Department of Environmental Protection

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

# **Implementation of Product Stewardship in Maine**

***February 2014***

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Contact: George MacDonald, Director  
Division of Sustainability  
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**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
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## Executive Summary

The Maine Department of Environmental Protection (Department) is submitting this report in accordance with 38 M.R.S.A. § 1772(1), which requires the Department to provide an annual update on the performance of existing product stewardship programs, as well as product or product categories that when generated as waste may be appropriately managed under a product stewardship program.

From 1992 to 2009, Maine enacted five product-specific laws which require producers to establish programs to recover their products from Maine's waste stream and ensure proper handling and recycling, recovery, or disposal of these products. These products include: dry mercuric oxide and rechargeable batteries; mercury auto switches; electronic waste; mercury thermostats; and mercury lamps. In addition to these programs, Maine also has a product stewardship program for cellular telephones; however that law makes retailers responsible for the collection and recycling of unwanted cell phone, rather than the manufacturers. Lastly, P.L. 2013, ch. 395 was enacted last session, creating a program for architectural paint, which is currently set to be implemented in Maine in 2015.

The following trends have been observed under the existing programs:

- The total weight of rechargeable batteries recycled between 2008 to 2012 increased by 33%;
- Mercury auto switch recycling reached its highest rate of recycling in recent years;
- Maine's overall recycling rate of electronic waste per person is among the top five states, at 6.57 pounds per person;
- Total pounds of mercury collected from thermostats, at 46.69 pounds, is the highest it has been since 2009;
- In only its second year, the mercury-added lamps program has seen a recycling rate of 29%; and
- Used cellular telephones are still a desirable commodity, and Maine continues to have a robust collection network.

Over the next year, the Department will collaborate with other New England states to identify possible methods to encourage the recycling of mattresses and carpets, and the Northeast Waste Management Officials Association (NEWMOA) will explore opportunities to harmonize existing extended producer responsibility (EPR) efforts across the region. This approach can achieve economies of scale to achieve an adequate flow of materials to new processing and recycling enterprises.

## I. Introduction

The product stewardship programs at the Department of Environmental Protection are defined at 38 MRSA § 1771(5), as “producer's taking responsibility for managing and reducing the life cycle impacts of the producer's product, from product design to end-of-life management,” in order to support the State's solid waste management hierarchy (38 MRSA § 2101). This hierarchy prioritizes the management of solid waste, through various actions, the highest being reduction in volume and

toxicity of waste at the source to the lowest being land disposal of waste. Product stewardship, which also may be referred to as “extended producer responsibility,” shifts the cost of the end-of-life management of products from municipalities and taxpayers to the producers and the consumers who purchase the products that are included in that program.

Product stewardship programs can be an effective tool to encourage the diversion of materials from disposal to recycling, and to encourage manufacturers to alter product design to support the recovery of materials from the products, and to invest in management systems to ensure the recycling of their products at the end of life. This reduces the costs of recapturing commodity materials from products, and ideally results in a positive commodity value when products reach the end of their useful life. As the concept of product stewardship has become more familiar, manufacturers of some products are proactively developing preferred model programs for recycling their products.

In accordance with 38 M.R.S.A. § 1772(1), this report includes updates and evaluations on the performance of Maine’s existing product stewardship programs, with recommended next steps to improve program performance and evaluation. The report also addresses future product strategies under development.

## **II. Performance of Existing Product Stewardship Programs**

Currently, five product stewardship programs that mandate manufacturer responsibility for recycling have been implemented in Maine. These extended producer responsibility (EPR) programs provide for the recycling of rechargeable batteries, mercury auto switches, electronics, mercury-added thermostats, and mercury-added lamps. In addition, Maine has a product stewardship law to enhance the recycling of cellular telephones. Maine’s cellular telephone law makes retailers responsible for the collection and recycling of unwanted cell phones rather than the manufacturers.

Also, manufacturers of architectural coatings (paint) will be implementing an EPR program in Maine in 2015.

### ***A. Rechargeable batteries program performance***

38 M.R.S.A. §2165, requires that manufacturers provide a system through which government agencies, and industrial, communications, and medical facilities can recycle their nickel-cadmium and sealed lead acid rechargeable batteries. This law was enacted in 1991, and the rechargeable battery manufacturers met their commitment through a program established by the former non-profit Rechargeable Battery Recycling Corporation (RBRC). RBRC, now known as Call2Recycle, voluntarily provides the Department annual data on its registered collection sites in Maine and the amount of rechargeable batteries and cell phones recycled from each. Although Maine’s law only requires free recycling for the specified types of businesses, Call2Recycle accepts rechargeable batteries from everyone.

The data Call2Recycle provides can be used to assess changes in the number of different types of collection sites and in the amount of batteries handled. Table 1 provides a comparison of the types and numbers of collection sites enrolled and active, and of the amount of batteries returned for recycling by each.

**Table 1: 2008 & 2012 Rechargeable Battery Recycling in Maine**

Collection site type	Number collection sites enrolled		Number returning boxes		Percent returning boxes		Pounds batteries returned		Percent of returns		Percentage change in pounds 2008 to 2012
Year	2008	2012	2008	2012	2008	2012	2008	2012	2008	2012	
Government	238	199	92	102	38.66	51.26	9,630	14,658	36.23	41.36	52.21%
Business	43	155	13	45	30.23	29.03	1,206	3,658	4.54	10.32	203.32%
Retail	391	324	153	160	39.13	49.38	15,745	17,123	59.23	48.32	8.75%
Totals	672	678	258	307	38.39	45.28	26,581	35,439	-	-	33.32%

The total weight of batteries recycled increased 33% from 2008 to 2012, reflecting an increase in the public awareness and participation. The data shows little change in the overall number of collection sites, with a shift toward more collection at businesses rather than government or retail locations, but a significant increase in the percentage of collection sites actively participating (i.e., sending rechargeable batteries for recycling).

### ***B. Mercury auto switches program performance***

2012 was the first year that the automobile manufacturers' National Vehicle Mercury Switch Recovery Program (NVMSRP) was fully implemented in Maine. This program is administered by End-of-Life Vehicle Solutions (ELVS), a non-profit stewardship organization established by the mercury auto switch manufacturers to manage both their required and voluntary programs throughout the U.S. The NVMSRP provides auto dismantlers with free buckets, shipping and recycling for all collected switches, and pays the incentives to the dismantlers as required by Maine law. With implementation of this more convenient program (FedEx delivers and picks up buckets at the dismantlers' shops rather than requiring the dismantlers to deliver to Portland or Bangor), performance in 2012 reached the highest annual recycling rate of 40% since 2006, when the US EPA established the national switch removal program.

**Table 2: Mercury Auto Switch Recycling 2008 -2012**

Year:	Number of switches recycled	Percentage of estimated number of switches available	Pounds of Mercury collected
2008	6972	28	15
2009	6868	33	15
2010	5685	27	13
2011	2236	12	5
2012	7139	40	16

Along with furnishing a very convenient collection system, ELVS provides the dismantlers with training videos (via YouTube), listings of vehicles with mercury switches and ABS sensors, and photo-based guidance documents showing where to find and how to remove the switches. In addition, the Department annually sends postcards to all vehicle dismantlers to remind them about the ELVS program, the availability of payment for switches recycled, and to send their mercury switches in for recycling. In addition, staff from the Department's Response Services, Hazardous Waste Enforcement, and Stormwater Management programs, all check on the auto dismantlers' implementation of the switch collection program when they visit auto dismantlers' yards on business related to their respective programs.

### ***C. Electronic waste program performance***

The amount of electronics recycled through Maine's legislated extended producer responsibility (EPR) program increases each year and has reached a total of nearly forty two million pounds. Recycling of covered electronic devices (CEDs) through Maine's EPR program began in 2006. CEDs include consumer products with video displays greater than 4" diagonal (TVs, monitors, laptops, digital picture frames, tablets, e-readers), game consoles and desktop printers. In addition to the CEDs recycled through the EPR program, some CEDs as well as other electronics from Maine are recycled through independent programs or in conjunction with the state's program CEDs. In 2010, Goodwill and Dell began accepting computer-related electronics through their ReConnect program at all Goodwill locations in Maine. Both Best Buy and Staples have instituted free electronics recycling at their retail locations within the past couple of years. Table 3 shows the total and per capita weights of electronics recycled each year from 2008 through 2012, plus voluntarily-reported weights recycled from other programs.

**Table 3: Electronic waste Recycling in Maine**

	Maine Program - total pounds	Maine Program Per Capita	Goodwill-Dell ReConnect - pounds	Maine Program Plus ReConnect Per Capita	Other non-program e-waste	Total all reported – total pounds	Maine Program Plus All Other – Pounds Per Capita
<b>2008</b>	5,274,419	3.99	N/A			<b>5,274,419</b>	3.99
<b>2009</b>	7,912,292	5.99	N/A			<b>7,912,292</b>	5.99
<b>2010</b>	5,368,445	4.06	1,151,997	4.93		<b>6,520,442</b>	4.93
<b>2011</b>	6,931,248	5.24	1,160,233	6.12		<b>8,091,481</b>	6.12
<b>2012</b>	7,438,861	5.62			1,253,748	<b>8,692,609</b>	6.57
<b>Total</b>	<b>41,774,391</b>		<b>2,312,230</b>		<b>1,253,748</b>	<b>45,340,369</b>	

Maine’s overall collection and recycling rate of 6.57 pounds per person in 2012 compares favorably with data reported by other states, with only a few other states reporting a higher per capita rate (see data collected by the Electronics Recycling Coordination Clearinghouse at [www.ecycleclearinghouse.org/Content.aspx?pageid=59](http://www.ecycleclearinghouse.org/Content.aspx?pageid=59)).

#### ***D. Mercury-added thermostat program performance***

38 M.R.S.A. §1665-B, Maine’s *Mercury-added Thermostats* law, was enacted in 2005 to establish extended producer responsibility for the collection and recycling of mercury-added thermostats. This law requires that the program be designed and implemented to achieve a maximum rate of collection [38 M.R.S.A. § 1665-B(2)(A)(1)], and it sets collection and recycling goals by weight, of at least 125 pounds of mercury within two years of implementation of a collection program for contractors and service technicians, and 160 pounds per year within three years of implementation of a program for homeowners. The law also requires manufacturers to “provide a financial incentive with a minimum value of \$5 for the return of each mercury-added thermostat”. In the program’s beginning, collection rates were below 10%, despite the availability of collection boxes at all HVAC wholesalers.

In 2007, the Thermostat Recycling Corporation (TRC), a non-profit organization that facilitates and manages the collection and proper disposal of mercury-containing thermostats, began implementation of the incentive program, where five dollars was provided to the deliverer of each mercury containing thermostat at a collection point, with HVAC wholesalers continuing participation as mandatory collection sites; voluntary retail participation to serve residents began in 2008. Estimated recycling rates reached 25.84% (including collections through both the TRC program and Maine’s universal waste system) in 2009, and have remained around 25% in subsequent years. In 2012, the TRC program collected and recycled 46.49 pounds of mercury from Maine, and total collections were the highest since 2009. The Department does not have data on the actual number of mercury-added thermostats still available for collection, and only has estimates of the number that would be removed each year in Maine. The Department will explore methods to improve available data to evaluate the appropriateness of the current weight-based statutory goals.

Table 4 shows thermostat collection numbers from 2008-2012. In 2012, there was a significant increase in the number of thermostats turned in through municipal household hazardous waste (HHW) collections. It appears that this increase was primarily due to a temporary program in which *ecomaine* (a non-profit waste management company owned and operated by 21 municipalities in Southern Maine) supplemented the TRC \$5 incentive with an additional \$5 incentive (providing a \$10 incentive) for each mercury-added thermostat turned in to their facility in Portland.

**Table 4: 2008-2012 Maine Thermostat Collections**

Year	Retail to TRC	Wholesale to TRC	Contractor to TRC	HHW to TRC	Mail-back to TRC	Other (not TRC)	Total	Pounds mercury by TRC	Recycling rate*	T-stats Per 10,000**
2008	N/A	4395	466	110	422	1176	6569	<b>46.24</b>	24.15%	49.45
2009	997	4760	234	267	116	655	7029	<b>48.75</b>	25.84%	52.91
2010	1011	4635	554	291	32	170	6693	<b>44.90</b>	24.61%	50.39
2011	2607	3139	92	773	5	256	6872	<b>46.36</b>	25.26%	51.73
2012	2239	1784	388	2264	4	333	7012	<b>46.49</b>	25.78%	52.78
<b>Totals</b>	<b>6854</b>	<b>29477</b>	<b>1914</b>	<b>3705</b>	<b>579</b>	<b>7524</b>	<b>50053</b>	<b>323.98</b>		

\*Based on a baseline calculation at the beginning of the program, of 27,200 estimated mercury thermostat removals per year in Maine.

\*\*Based on 2010 census population (1,328,361)

In addition, the Department performed an analysis of collections by the TRC program by regions in the state. For the purposes of this analysis, the State was divided into the following regions:

Region #1 = Southern Maine: York and Cumberland counties

Region #2 = MidCoast Maine: Androscoggin, Sagadahoc, Kennebec, Waldo, Lincoln and Knox counties

Region #3 = Western Maine: Oxford, Franklin and Somerset counties

Region #4 = Downeast Maine: Hancock and Washington counties

Region #5 = Central Maine: Penobscot and Piscataquis counties

Region #6 = Northern Maine: Aroostook county

Table 5 shows the collection rate for 2012 by region and by collection site type (retail, wholesale or HHW), which illustrates differences in collection site participation rates and the collection rate per 10,000 population between regions. This information is utilized by both the Department and the TRC in developing and planning outreach efforts.



**Table 5: 2012 Mercury-added Thermostat Collection by Region**

Region	Population 2010 Census	# active*/enrolled collection sites			# t-stats collected by TRC	Collection rate per 10,000
		Retail	Wholesale	HHW		
1	478,807	11/20	4/28	4/19	3384	70.59
2	378,125	13/20	10/18	1/22	2188	57.86
3	140,689	0/8	0/1	1/6	21	1.49
4	87,414	0/1	1/4	0/2	87	0.99
5	171,456	3/7	5/10	0/5	575	33.54
6	71,870	1/3	5/6	0/1	420	58.44
<b>Totals</b>	1,328,361	28/59 (47.5%)	25/69 (36.2%)	6/55	6671**	

\* Sites are considered “active” if they returned a thermostat collection bin within the calendar year. In both the active and enrolled site numbers, contractors are included in the wholesale category. For example, in Region 6, 4 out of the 5 active “wholesale” collection locations are contractor businesses.

\*\* TRC’s 2012 annual report states it collected both 6671 and 6675 thermostats. There were 4 sent in through the homeowner mail-back and are not included above since their county of origin is unknown. The difference in the totals is not statistically significant.

### ***E. Mercury-added lamps program performance***

Manufacturers of mercury-added lamps utilize the National Electrical Manufacturers Association (NEMA) to implement their product stewardship responsibilities for household mercury-added lamps. This program provides free containers, shipping and recycling services to voluntary retail and municipal collection sites.

NEMA reports that 50,492 mercury-added lamps were recycled through its product stewardship program in Maine in 2012. Based on historic sales data, NEMA estimates that there were 708,889 residential mercury-added lamps available for recycling in Maine in 2012. Based on that estimate, 7.1% of available lamps were collected and returned for recycling through the manufacturers’ program in 2012. In addition, the Department received manifests documenting the recycling of 155,159 household lamps from municipal waste collection sites. Taken together, this yields a recycling rate of 29% (205,651/708,889) for household mercury-added lamps in Maine in 2012, the second year of NEMA’s program.

38 M.R.S.A. § 1672(4)(A)(1), requires the manufacturers to establish “Convenient collection locations throughout the State”. In 2011, the NEMA program focused on signing up retailers that had previously participated as collection sites in the Efficiency Maine CFL recycling program. By the end of 2011, 149 retail and municipal sites had signed up to act as collection sites. This number increased to a total of 263 collection sites, (128 municipal and 135 retail), by August 2013. In 2013 NEMA and department staff worked to identify areas of the state underserved by collection sites. Both NEMA and department staff are reaching out to towns and retailers in the two small

underserved areas, Downeast Maine and in southwestern Maine, to encourage participation in the program.

Convenient collections in conjunction with high consumer awareness of recycling opportunities are necessary to support adequate program performance. In 2013, NEMA continued a coordinated marketing campaign to educate Maine consumers on their free recycling program and about the disposal ban on fluorescent light bulbs. This included: print ads in *Uncle Henry's*, *Downeast Magazine*, the *Bangor Daily News*, *Portland Press Herald* and some local weeklies; distribution of a radio PSA to 95 area-specific radio stations; internet search purchases; and, print and signage advertising at University of Maine Black Bear athletic events.

### ***F. Cell phone recycling program performance***

The recycling of cellular telephones is encouraged in Maine by a product stewardship law. However, unlike other product-specific programs, the law assigns recycling requirements to retailers and reporting requirements to cellular telephone service providers, rather than producers.

Currently, unwanted cell phones have market value, and a free collection system, offered by retailers and varying organizations, for recycling cell phones is very widespread in Maine. The collection network includes 100 locations offered by the five cellular telephone services providers and their authorized dealers and 675 additional sites offering the Call2Recycle® program (371 retail and 304 municipal, public agency and business locations, including many local solid waste and recycling facilities). Retailers utilizing the Call2Recycle® program include several of the larger retail chains (Rite Aid, RadioShack, Best Buy and Wal-Mart).

In addition to these physical collection sites located across the state, there are many internet-based non-profit organizations soliciting donations of cell phones, as well as for-profit businesses offering to purchase cell phones from consumers. A quick Google search for “cell phone recycling for cash” finds over 2 million “results” and 11 paid advertisers on “page 1” offering to buy cell phones directly from consumers. The strength and success of these various programs in capturing unwanted cell phones should be celebrated, and indicates that the government mandated recycling program for unwanted cell phones is unnecessary.

Although the collection network in Maine is robust, the data is not available from which to develop a quantitative assessment of program performance, i.e., a recycling rate. The plethora of internet outlets for the recycling of cell phones makes it infeasible to collect complete and accurate data on the number of cell phones recycled from Maine each year. Consistent reporting to the Department by the cellular telephone service providers over the past six years highlights their commitment to making cell phone recycling easy and even financially beneficial for their customers.

### **III. Evaluation of the Performance of Maine's EPR Programs and Recommendations**

The Department is required to report annually to the legislature on the performance of Maine's product stewardship programs, and include any recommendations for improvements to the programs. Recommendations for improvement may be warranted when there is evidence that a program is underperforming. Based on the performance evaluation of each program discussed in the previous section, the Department believes additional information should be collected to evaluate if adjustments to the rechargeable batteries and mercury-added thermostats programs may be appropriate in coming years.

#### ***A. Rechargeable Batteries Program***

The rechargeable battery recycling program has established a robust collection system, but there is insufficient information to accurately assess actual program performance, i.e., what percentage of batteries available for recycling are collected each year?

The first step needed to understand how much change, if any, is needed in the current EPR program for rechargeable batteries is to gather additional information on program performance. Missing key performance indicators include the collection rate (number of batteries collected/number of batteries available for collection), recovery rate (amount recycled/amount collected), and recycling rate (collection rate x recovery rate). The Department will evaluate options for obtaining and/or estimating these data points, and may provide recommendations in the future.

#### ***B. Mercury-Added Thermostats***

The mercury-added thermostat program has not achieved the statutory capture rate in pounds, and there is a level of uncertainty in data supporting the percentage of thermostats available for recycling.

As noted earlier, the mercury-added thermostat program recycling rates remain around 25% (of the mercury-added thermostats estimated to be available for recycling), which is 29% of the statutory weight-based goal. In its report on the program for 2011, TRC wrote: "The current performance goal of 160 pounds is based upon a flawed metric. The assumptions used to develop this goal were not empirically based and represent little more than guesses... No one knows the remaining installed base of mercury thermostats in Maine or the number that become waste annually."

To more accurately evaluate program performance, the uncertainty in both the average number of mercury-added thermostats available for recycling each year (this is determined based on the average lifespan) and in the number of thermostats in each home and business should be addressed. A more accurate estimate of the number of thermostats per home and business, and the percent containing mercury, are needed. The Department will explore options to develop a more valid, updated estimate of the number of mercury-containing thermostats available for recycling, and that are replaced each year in Maine.

## **IV. Future Product Strategies**

Department staff are engaged in a number of discussions and activities with other states, non-profits and trade associations, both within the Northeast as well as nationally, in reviewing the success and concerns of existing product stewardship programs and laws, as well as in considering additional strategies to divert difficult to manage materials from disposal.

### ***A. Paint***

P.L. 2013, ch. 395 directs manufacturers of architectural paint to work with a stewardship organization to submit a program plan to the Department by April 1, 2015, to establish a paint stewardship program in Maine. The Department will propose changes to hazardous waste regulations in 2014 to accommodate this new law, and review subsequent program plan submissions. Product stewardship programs for architectural paint are underway in California, Oregon and Connecticut, with Vermont and Rhode Island starting in 2014.

### ***B. Mattresses and Carpets***

Solid waste facility operators in Maine frequently identify mattresses and carpets as difficult to manage products in Maine's MSW waste stream.

Product stewardship laws for mattresses were recently enacted in Connecticut, Rhode Island, and California, as a method to divert these products from disposal sites and lead to the recovery and reuse of the materials associated with the products.

Laws in these states require manufacturers to utilize a stewardship organization to provide free collection and recycling services to municipalities, including collection containers for local transfer stations. To fund the program, manufacturers pay a fee per mattress sold to the stewardship organization; this fee is then charged by retailers to consumers when a mattress is purchased. Mattress manufacturers must submit a program plan for approval to Connecticut's environmental department by July 1, 2014, and to the responsible state agencies in Rhode Island and California by July 1, 2015.

Currently there are limited numbers of mattress recycling facilities available in the Northeast, located in Massachusetts and in Connecticut.

There have been several attempts nationally to address the recovery of used carpets. The carpet industry established the 'Carpet America Recovery Effort (CARE) to encourage the diversion of unwanted carpet from landfills and is a resource for planning. The State of California has adopted a stewardship program for carpet, and CARE is the stewardship organization administering that program, which is funded by a fee of five cents per square yard for each square yard of carpet sold in California. The Department will work with other New England states to evaluate options for a regional approach to managing used mattresses and carpets in ways that encourage recovery of the materials and reduce the use of landfill space for disposal of these products.

## **V. Conclusion**

Maine has one of the highest number of product stewardship programs established by law in the country. Information collected by and reported to the Department under these programs indicates they are successfully diverting materials from disposal in Maine, and that diversion rates are increasing for many of the affected products.

Based on our review of program performance and goals, the Department has identified the need to improve and update information regarding the numbers of rechargeable batteries in Maine's market, and the number of mercury-added thermostats that are removed and available for recycling in Maine each year.

The Department will be working to implement the new stewardship program for architectural paint in 2014, and exploring opportunities to work with other states in our region to divert mattresses and carpets from disposal.





February 10, 2014

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

Re: Implementation of Product Stewardship in Maine - Carpet

Dear Mr. MacDonald,

I read with interest your comprehensive 2014 report: "Implementation of Product Stewardship in Maine." As president of the Carpet & Rug Institute (CRI), a not-for-profit trade association that represents carpet manufacturers who are responsible for more than 95% of the carpet produced in the United States, I am concerned about the possible ramifications of over-regulating post-consumer carpet products. Carpet is one of the last remaining major U.S. textile industries, and tens of thousands of American jobs depend on the U.S. carpet industry, in manufacturing, transportation, installation, retail sales, recycling, and more. Your report references the amount of carpet going into Maine's landfills, and while carpet is neither toxic nor hazardous, we understand that landfill space is significantly limited.

The carpet industry has been a leader in forging product sustainability. As you suggested in your report, one of our significant recent accomplishments is The Carpet America Recovery Effort (CARE). CARE is a voluntary, non-profit organization dedicated to increasing the landfill diversion, reuse, and recycling of waste carpet through market-based solutions that benefit the economy as well as the environment. Reduction in the amount of carpet going to landfills each year is already happening. Since 2002 U.S. carpet manufacturers, working with independent recyclers and processors, have diverted more than 2.6 billion pounds of used carpet from landfills. CARE's four hundred-plus members include independent carpet recyclers, carpet manufacturers, dealers, retailers, suppliers and non-governmental organizations.

Unlike newspapers and aluminum cans which are relatively easy to recycle, carpet is a complex product that is difficult to separate into its component parts. However, there are multiple products currently in use that contain materials recovered from used carpet.

- New carpet and carpet padding
- Plastic components for automobiles and consumer products
- Building materials – architectural moldings, boat docks, and decks
- Sound barriers – along interstates and elsewhere
- Erosion control, silt and oil filtration materials
  - In addition, post-consumer carpet, which burns hotter and produces less greenhouse gasses than coal, can be used as an alternative fuel when other uses are not practical.





CRI and its members have not only worked hard to ensure that their products are completely safe to the consumer, but they have taken great effort towards producing sustainable products. We are therefore particularly concerned that the carpet industry, which has been a leader in addressing environmental concerns in a proactive manner, would have carpet highlighted as one of the first non-hazardous products to be considered for extended producer responsibility.

Carpet is one of the safest and healthiest products in the home, office, or school. It adds comfort, warmth, and beauty to any home. In fact, carpet's use in virtually every residential and commercial interior setting is so accepted that we are not aware of any federal or state requirements covering its sale or use. As such, carpet, because of its long track record of performance and sustainability initiatives, should not be subjected to the kind of extreme product stewardship or take-back program referenced in your report.

These approaches rely on the flawed premise that assigning product manufacturers the end-of-life costs of recycling or disposing of products will result in more environmentally-preferred product designs, eliminate product disposal costs, and reduce disposal of products in landfills. However, current product-mandated manufacturer take-back programs have not successfully demonstrated positive cost-benefit results in collecting products at the end of their life-cycles. It is unrealistic to expect that consumers will utilize individual and separate product take-back programs for diverse product categories or that those programs would use resources more efficiently.

Manufacturers are continually producing more environmentally-preferable products and using the most recyclable and environmentally-friendly components and packaging available and feasible. These activities are environmentally focused and are also necessary in order to be cost-effective and responsive to consumer demands.

Mandates for product take-back and recycling can harm the environment in unforeseen ways, by forcing companies to switch from materials that are perhaps more energy-efficient to produce, lighter to transport, or safer, to heavier materials that are more recyclable, but require more energy to produce and use and could pose greater safety concerns. Market processes encourage innovation in the use of limited resources throughout a product's life-cycle, while mandated product take-back programs override this natural research and development process, and only drive manufacturers toward materials that have more positive recycling or take-back attributes.

In these times of extreme fiscal pressures on government and industry, it seems prudent to include a requirement for cost-effectiveness or a cost/benefit analysis in any proposed new mandate. However, there appears to be no such requirement included in this program. Consequently, the mandates of this program could effectively put an industry out of business and drain state resources in staggering administration costs, while still mandating DEP to move forward. We urge the inclusion of a cost-benefit analysis component in any extended producer program, in order to prioritize limited resources and prevent fiscally questionable mandates.

As an alternative to mandates, CRI supports continued voluntary initiatives to find cost-effective solutions. We feel a much more prudent and effective approach to the landfill diversion of carpet lies in using the power of government in a different way; by driving the use of products that contain recycled or recyclable materials through the state's product specification process. This



approach would drive the market to develop products that meet these requirements, and thereby reduce the amount of material going to landfills.

On behalf of the members of the Carpet and Rug Institute, I thank you for your consideration of these concerns. If you have any questions, please do not hesitate to contact Jennifer Mendez, CRI vice president for government relations at [jmendez@carpet-rug.org](mailto:jmendez@carpet-rug.org), or 703-875-0634.

Regards,



Werner Braun  
President







February 12, 2014

Mr. George MacDonald  
Director, Division of Sustainability  
Maine DEP  
17 State House Station  
Augusta, ME 04333-0017

Mr. McDonald,

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, 126th 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 type 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 'K C Canan', with a long horizontal flourish extending to the right.

Kevin C. Canan  
Executive Director

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**DATE:** February 14, 2014  
**TO:** George MacDonald, Director  
Division of Sustainability  
Maine Department of Environmental Protection  
**FROM:** The National Electrical Manufacturers Association (NEMA)  
**RE:** NEMA Comments on Maine DEP Report, "Implementation of Product Stewardship in Maine," dated February 2014

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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 450 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 have been the focus of product stewardship laws in Maine and our members have a long history of working with Maine legislators and regulatory authorities on the development of these laws and the programs they authorize.

NEMA appreciates the opportunity to comment on the latest version of this report from the Maine Department of Environmental Protection (DEP), pursuant to the 2010 Maine product stewardship law (Title 38, chapter 18, 38 MRSA §1771-1775). 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 presented below.

### **General Comment**

In its introduction to the report, DEP once again states that product stewardship "... *also may be referred to as 'extended producer responsibility.'* ...". As we noted in our comments last year, these terms are **not** synonymous. In April 2012, three leading organizations in the product stewardship field issued a joint statement to clarify the distinction between the two concepts.<sup>1</sup> The statement is important because it acknowledges the more rigid, mandatory aspects of EPR as compared with product stewardship, which NEMA supports.<sup>2</sup>

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<sup>1</sup> See <http://productpolicy.blogspot.com/2012/04/consensus-definitions-for-epr-and.html>

<sup>2</sup> See NEMA "Statement of Principles on End-of-Life Management of Electrical Products," Nov. 2009, available at [http://www.nema.org/gov/env\\_conscious\\_design/upload/NEMA\\_EOL\\_Mgmt\\_STATEMENT\\_OF\\_PRINCIPLES.pdf](http://www.nema.org/gov/env_conscious_design/upload/NEMA_EOL_Mgmt_STATEMENT_OF_PRINCIPLES.pdf)

EPR as a policy fails to account for the vast differences between products in terms of volume of sales, product size and fragility, hazardous material content, system of distribution, product life expectancy, recycled value, market economics, and other critical factors. Given all these variables, a more logical and efficient state policy would stress flexibility and focus on assigning (and enforcing) appropriate responsibilities on all parties that profit and benefit from a product.

### **Comments on Section II.D - Mercury-added thermostat program performance**

#### **Overview of Program**

- In describing the state's mercury thermostat law, the report notes that "*In the program's beginning, collection rates were below 10%, despite the availability of collection boxes at all HVAC wholesalers.*" This 10% threshold is unfounded as there continues to be no sound, empirically-based method of estimating the number of thermostats in place or entering the waste stream annually in a particular state or region. DEP appears to acknowledge this fact in stating that it "*does not have data on the actual number of mercury-added thermostats still available for collection, and only has estimates of the number that would be removed each year in Maine.*" Nevertheless, the department bases its analysis of the program on a figure of 27,200 "estimated mercury thermostat removals per year in Maine," but provides no explanation or source for this number.

#### **Need for Additional Data**

- NEMA supports DEP's stated intent to "*explore methods to improve available data . . .*" as a means of evaluating the appropriateness of program goals. The state has never come close to achieving its weight-based statutory goals, which NEMA contended at the time of enactment were unrealistic and overly ambitious. Current, statistically reliable information on the prevalence and removal of mercury-switch thermostats within Maine is a far more appropriate knowledge base than *pro rata* figures drawn from unscientific national estimates.

#### **Regional Assessment**

- The regional assessment contained in the report (pgs. 6-7) is helpful, but NEMA urges caution in drawing conclusions from the raw data as presented. When evaluating results in a particular town or county, it must be remembered that under Maine law, participation is **voluntary** both for retailers and public, household hazardous waste facilities – only heating, ventilation, and air conditioning (HVAC) wholesalers are required by the statute to serve as collection points. Those retailers and public facilities that do agree to collect may or may not "actively" participate by promoting the program, returning bins in a timely manner, or train new staff as needed. The fact that a location has a TRC collection bin on site provides no assurance that it is used as intended and returned.
- A lack of thermostat collections from sites in a specific county or town **does not** necessarily imply that no thermostats were recovered from that area. HVAC contractors, who dispose by far the greatest number of end-of-life thermostats, will take thermostats and other items to the wholesaler(s) with which they typically do business. If that wholesaler is in another county, it is there that any returned thermostats will be counted. Franklin County, for example (located in Region 3 in the report) contains only one small wholesaler. Contractors who operate in the county are thus likely to be depositing thermostats in neighboring regions that have more wholesale outlets, like Bangor, Waterville, or Portland. All are high population centers, have multiple wholesaler sites, and return most of the thermostats in the state.

### **Value of Field Visits**

- Both TRC and DEP staff have spent time “in the field” engaging collection sites and their activity has brought results in recent years. It is noteworthy that collections have remained steady in Maine despite the rapidly decreasing stock of mercury switch thermostats still in use. The return on this field effort is limited, however, particularly in the retail sector. As noted earlier, retailers are not obligated under the law to participate in thermostat collection. Moreover, thermostat removal and disposal is primarily done by contractors who interact with the wholesaler sector. “Do-it-yourself” homeowners are a very small part of the market so continued investment in promoting the retail aspect of the program can generate at best only modest improvement in collections.

### **Comments on Section II.D – Recommendations**

#### **Mercury-Added Thermostats**

- As noted above, NEMA concurs with the DEP’s finding that more data are needed to “. . . develop a more valid, updated estimate of the number of mercury-containing thermostats available for recycling, and that are replaced each year in Maine.” We welcome a dialogue with DEP on methods of acquiring data that will help achieve this goal.

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

### **Contact**

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## **Comments of the Natural Resources Defense Council to the Maine Joint Standing Committee on Environment and Natural Resources on the Maine DEP Report “Implementation of Product Stewardship in Maine” and the TRC Annual Report on its Mercury Thermostat Collection Program**

The Natural Resources Defense Council (NRDC) is actively engaged in promoting improvements to mercury thermostat collection programs throughout the country. We possess over a decade of experience in designing and evaluating these programs, and respectfully submit these comments to facilitate a complete understanding of how well the Maine manufacturer take-back program for mercury thermostats is performing.

In its “Implementation of Product Stewardship in Maine”, released in mid-January, Maine DEP provides data on the industry program through 2012. Subsequent to this release, on January 30, 2014, the Thermostat Recycling Corporation (TRC) submitted its annual report to DEP for 2013. In these comments, NRDC will address TRC’s performance data for 2013, and propose recommendations for program changes responsive to these data.

We agree with Maine DEP’s finding in the product stewardship report that better data are needed to estimate how many mercury thermostats remain in use within Maine, and to determine annual estimated outflows, so that meaningful performance standards for the Maine TRC program can be set. A specific recommendation on this aspect is provided below.

### **TRC Program Performance**

From calendar years 2009-2012, TRC’s annual collection results in Maine grew each year within the 6,374–6,675 range of number of thermostats collected. During these years, Maine was a leading program in the country, as measured by per capita collection rates. Then, in 2013, the number of thermostats collected suddenly dropped to 4,213 thermostats. TRC suggests the sudden drop in 2013 is due to the smaller

number of mercury thermostats available for collection, but the empirical results suggest otherwise.<sup>1</sup>

Most of the drop in 2013 is from retailer collections, decreasing from 2239 in 2012 to 997 in 2013. TRC education and outreach activities did not target this thermostat return pathway, even though the largest number of thermostats were collected in Maine via retailers during 2012.<sup>2</sup> TRC appears to justify this approach by claiming homeowners only account for about 10% of potential thermostat returns, but in fact the proportion attributable to homeowners may be much higher (25%), and in any case, many small HVAC contractors in Maine likely use this outlet as well.

The second contributor to the drop in 2013 was much lower returns via HHW collection programs, a decrease from 2264 in 2012 to 772 in 2013. We believe the increased financial incentive (\$10.00) provided under the EcoMaine SEP drove the results in 2012, since 90% (2,045 of the 2264 thermostats) of the HHW returns statewide in 2012 were at a EcoMaine SEP location. Per capita collection rates during 2012 in southern Maine (York and Cumberland Counties) jumped to almost 71/10,000 people, as compared to 50/10,000 people statewide in Maine for 2011, and 16.3/10,000 people in the neighboring State of New Hampshire in 2011. **The Legislature should authorize Maine DEP to study what impact a larger financial incentive would have on mercury thermostat return rates, through conducting pilots and other means.**

Returns via wholesalers actually increased in 2013 versus 2012, notwithstanding the overall drop-off. In 2013, TRC visited some wholesaler locations (albeit in a very limited way), suggesting its efforts had an effect and there are growth opportunities remaining with a more serious and concerted effort.

### Setting Performance Standards for the Maine Program

Studies in other states, including TRC's own study in California, indicate that while annual outflows of mercury thermostats will decline over time (since new sales are

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1 In addition to the empirical results discussed immediately below, we would expect any program performance declines due to fewer mercury thermostats available would be more gradual over time, reflecting the aging of the mercury thermostat population generally.

2 TRC has not purchased any print media or radio/tv ads specific to Maine, e.g., weeklies or Uncle Henry's. Their ads in trade publications don't reach the general public and don't likely reach many technicians in Maine. TRC's web ads only appear when someone actively searches for information on thermostat recycling. In its annual report, TRC suggests (p.3) that more education and outreach efforts in Maine will not appreciably improve the program. This suggestion appears to us self-serving since TRC has not come close to exhausting the possibilities, and has had virtually no physical presence in the state for years. In our view, TRC has more to do in Maine before reaching this conclusion.

banned), there are millions of mercury thermostats still on the wall that will need to be collected at the end of their useful life. In California, the TRC study indicated a minimum of 5.1 million mercury thermostats still on the wall in that state as of the end of 2009, notwithstanding a ban on installing mercury thermostats in new construction which pre-dates Maine's mercury thermostat sales ban.<sup>3</sup> TRC's program collected less than 10% of the available mercury thermostats in California, prompting the state to develop enforceable collection goals requiring the collection of hundreds of thousands of additional thermostats over the next five years.<sup>4</sup>

A similar study NRDC commissioned for Illinois found 1.86 million mercury thermostats remaining on the wall in that state and over 100,000 mercury thermostats becoming waste in Illinois annually over the next five years.<sup>5</sup> Under Illinois law, the Illinois Environmental Protection Agency (IEPA) will be setting enforceable performance standards later this year. IEPA is authorized under state law to impose program changes if the performance standards are not met.

Accordingly, declining mercury thermostat outflows do not mean TRC is collecting most of what is available. To the contrary, as recently observed by the United States Geologic Survey, there are millions of mercury thermostats still available for collection nationally and it is unlikely TRC ever collected the majority of mercury thermostats coming off the wall in Maine or elsewhere.<sup>6</sup>

Nevertheless, we do agree with Maine DEP and TRC that Maine should determine how many mercury thermostats remain on the wall in Maine, and what the estimated annual outflows will be over the next several decades. In our view, these estimates should form the basis for setting meaningful performance standards which hold TRC accountable for poor program performance. In addition, the Legislature should authorize Maine DEP to require program changes as needed to meet the performance targets. **The Legislature should either allocate funds for Maine DEP to perform a study and derive these estimates, or require TRC to perform the study (after Maine DEP provides for stakeholder input and approves both the consultant and the methodology).**<sup>7</sup>

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3 See [http://www.dtsc.ca.gov/HazardousWaste/upload/TRCThermostat-Report-12\\_09.pdf](http://www.dtsc.ca.gov/HazardousWaste/upload/TRCThermostat-Report-12_09.pdf).

4 See [http://switchboard.nrdc.org/blogs/dlennett/california\\_issues\\_precedent\\_se.html](http://switchboard.nrdc.org/blogs/dlennett/california_issues_precedent_se.html).

5 See [http://switchboard.nrdc.org/blogs/dlennett/new\\_study\\_finds\\_over\\_18.html](http://switchboard.nrdc.org/blogs/dlennett/new_study_finds_over_18.html).

6 See <http://pubs.usgs.gov/sir/2013/5137/pdf/sir2013-5137.pdf>, p. 21.

7 TRC suggests in its recent annual report that Maine should impose contractor reporting requirements in lieu of performing such a study. California rejected this approach in its recent rulemaking, and no other state does as TRC suggests, because the approach is burdensome to small businesses, costly to administer, and will likely produce unreliable data.



### Maine's Financial Incentive

The TRC 2013 annual report indicates TRC paid out \$17,670 in Maine program incentive payments during 2013. At \$5.00 per thermostat, this amount correlates with the return of 3,534 thermostats, or almost 84% of all the thermostats collected in 2013. In other words, Maine citizens and business are enduring the delays and complexity of the incentive system TRC designed for 5 out of every 6 thermostats TRC collected last year.<sup>8</sup> Clearly, the incentive payment remains an important driver for the Maine collection program. The major questions outstanding regarding the incentive payments are not whether they should be continued, but whether the \$5.00 amount chosen eight years ago remains sufficient, whether wholesalers warrant incentivizing to improve program performance, and how the current payment system can be changed to be faster and simpler.

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<sup>8</sup> For example, to receive the incentive payment, TRC requires contractors who bring their thermostats to wholesalers to fill out paperwork for each mercury thermostat returned, rather than allowing one coupon to cover all the thermostats returned at one time. Moreover, these contractors can wait months to receive the incentive payment, since TRC does not provide the payment until the collection box at the wholesaler is shipped to TRC for recycling (when it is full or at the end of the year).



February 14, 2014

George MacDonald  
Director, Division of Sustainability  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, ME 04333-0017

**Comments on the Maine Department of Environmental Protection's 2014 Report to the Legislature, *Implementation of Product Stewardship in Maine***

Dear Mr. MacDonald,

Thank you for the opportunity to submit comments on the Department of Environmental Protection's 2014 Report to the Legislature, *Implementation of Product Stewardship in Maine*. The Natural Resources Council of Maine is the state's leading environmental advocacy organization. Over the past decade, NRCM has worked with the DEP, Maine State Legislature, businesses, trade associations, and other interested parties to help craft, monitor, and promote product stewardship programs that have helped reduce mercury pollution to Maine's environment, divert millions of pounds of waste from Maine's landfills and incinerators, save money for taxpayers and municipalities, and create jobs here in Maine. We have worked with the DEP and many of these same parties to identify ways to continually improve implementation of Maine's nationally recognized product stewardship programs, and we have monitored product stewardship laws across the nation to determine whether additional product categories deserve consideration for possible new product stewardship programs here in Maine.

It is with this knowledge and experience relevant to the laws and programs referred to in this report that we submit these comments. Our comments address DEP's analysis of each of Maine's existing product stewardship programs. They also provide a detailed analysis of the mercury thermostat program, identifying areas of concern and opportunities for improvement.

**Specifically, the mercury thermostat collections in 2013 fell precipitously to less than 15% of the current statutory goal.** We are providing suggested statutory language that we believe would result in a substantial increase in the removal of mercury-containing thermostats from the waste stream—and thus from Maine's environment—and we will be encouraging the Committee on Environment and Natural Resources to enact those changes this year.

**Overall Program:**

Overall, we are pleased by the positive trends in each of Maine's five existing product stewardship programs: dry mercuric oxide and rechargeable batteries; mercury auto switches; electronic waste; mercury thermostats; and mercury lamps. In the future, we urge DEP to include the beverage container program in their annual product stewardship report. This program was Maine's first product-specific law and has resulted in recycling 90% of Maine's beverage

containers, which is more than double Maine's average recycling rate for other materials.<sup>1</sup> If DEP requires legislative authority to include the bottle bill in this report, then we would hope that the Environment and Natural Resources Committee would provide the necessary directive. Unlike last year's report, DEP has not recommended repealing the cellular phone recycling law. We appreciate this change, and also appreciate the report's thorough description of the success of the cellular telephone collection program. We commend DEP for highlighting Maine's product stewardship programs as *"effective tools to encourage the diversion of materials from disposal to recycling,"* and for stating that product stewardship *"...supports the State's solid waste management hierarchy. This hierarchy prioritizes the management of solid waste, through various actions, the highest being the reduction in volume and toxicity of waste at the source to the lowest being land disposal of waste."*

We also appreciate DEP's statement in the report that product stewardship programs *"encourage manufacturers to alter product design to support the recovery of materials from the products and to invest in management systems to ensure the recycling of their products at end of life."*

In addition to reducing the volume of materials destined for landfilling or incineration, and encouraging product re-design and re-capture, each of the existing programs has achieved significant and meaningful results in reducing risks to human health and the environment in Maine. These programs have removed hundreds of pounds of mercury, and large volumes of other toxic heavy metals from entering our environment. When mercury is improperly disposed of in landfills or incinerators, it can be released into the environment where it makes its way into our lakes, rivers, and streams, and contaminates the fish we eat. Even in very small quantities, mercury can cause severe health problems such as cardiovascular disease and neurological damage, and endanger the development of the human fetus and young children.

We highlight the significance and the success of each program, and provide recommendations for future improvement, below. NRCM has generated the charts in each section using DEP data, to help illustrate the performance of each program.

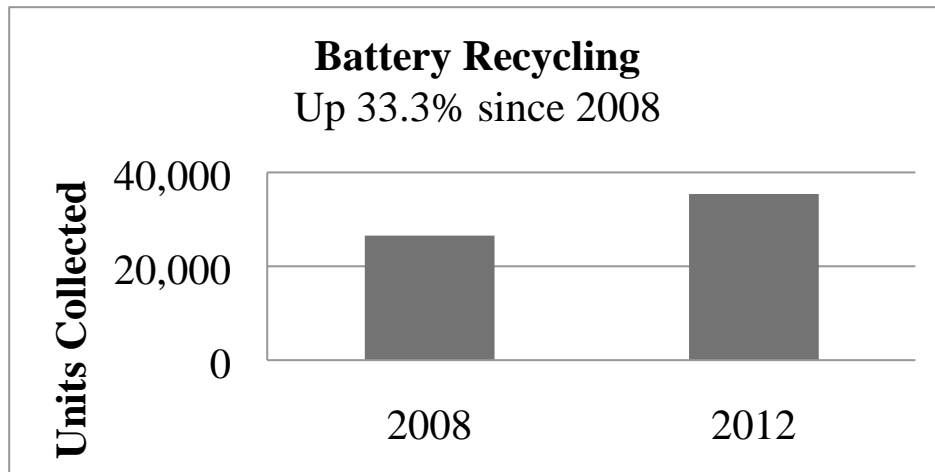
### **Maine's Product Stewardship Programs:**

#### **Dry Mercuric Oxide and Rechargeable Batteries**

Call2Recycle, the non-profit established by the rechargeable battery manufacturers, voluntarily report their collections data to the state. They report a 33% increase in the total weight of batteries collected in 2012 as compared with 2008. The total number of collection sites has not increased, but has shown a shift away from government or retail locations and more toward other businesses. This overall increase is good news for Maine, but we lack sufficient data to measure program effectiveness such as the ability to compare the number of batteries available for collection with the number of batteries collected for recycling. If the Legislature decides that additional program performance standards are needed, we recommend requiring Call2Recycle to provide this information on an annual basis.

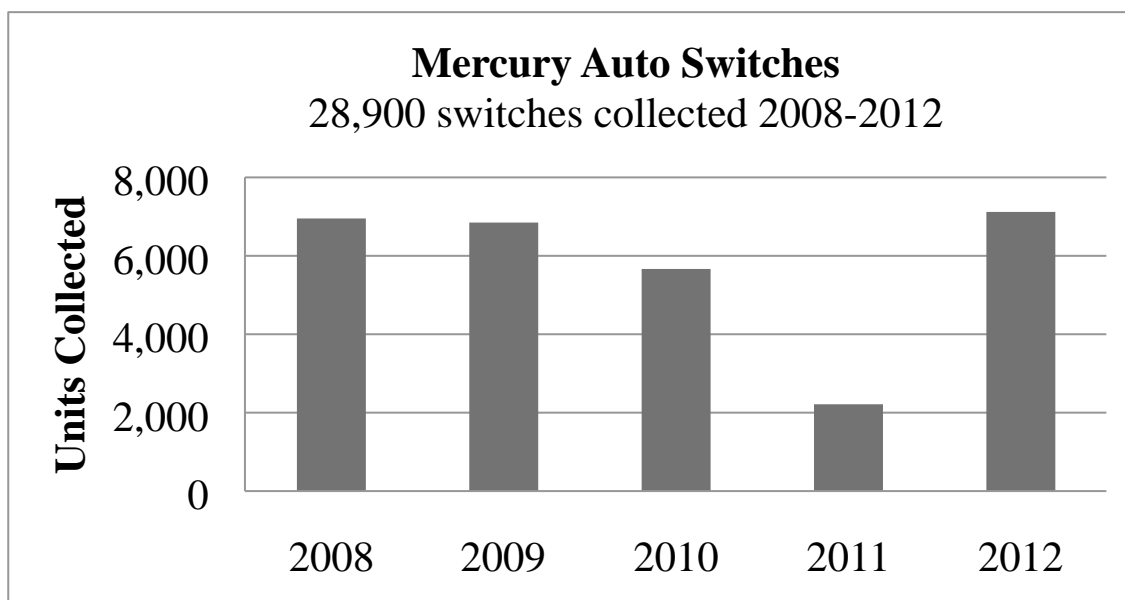
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<sup>1</sup> Visit NRCM's website to view our case studies on four of Maine's product stewardship programs, including the bottle bill: <http://www.nrcm.org/projects-hot-issues/toxics-and-sustainability/recycling-and-product-stewardship/>



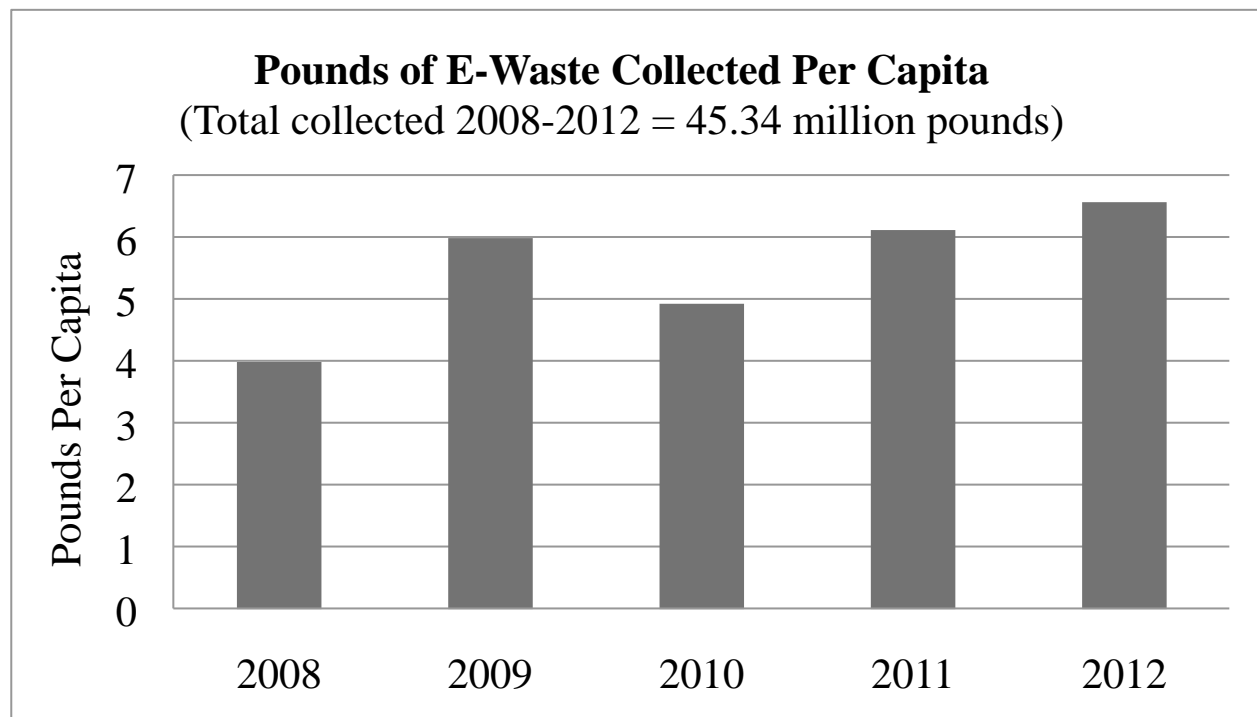
### Mercury Auto Switches

2012 was the first year that the automobile manufacturers' National Vehicle Mercury Switch Recovery Program was fully implemented in Maine. With this convenient program, Maine has recycled 40% of the estimated switches available, which is the highest recycling rate since 2006. A total of 28,900 switches have been collected since 2008. Program performance also has improved through the work of End-of Life Vehicle Solutions (ELVS), the non-profit tasked with managing collection of these devices, which actively encourages vehicle dismantlers to responsibly handle the mercury switches by providing training videos and guidance documents. Further, DEP has been reminding vehicle dismantlers about the collection program through direct mail and site visits. We are pleased by the accomplishment of ELVS and the DEP in promoting and encouraging the success of this collection program. We were disappointed, however, that DEP's 2014 product stewardship report fails to mention the \$4 bounty paid by ELVS to end-of-life vehicle handlers for each returned switch. We feel that this financial incentive is also one of the primary factors that have led to the success of this program.



### Electronic Waste

In most states, e-waste recycling program effectiveness is measured by pounds collected per capita, and we are pleased to see that Maine is doing the same this year. In Maine, we compare very favorably with the data reported by other states and are among the top e-waste recyclers in the nation. Maine has experienced a relatively steady increase in collections since 2008, with 2012 reporting our highest collection rate yet at 6.57 lbs. of e-waste per capita. More than 46 million pounds of e-waste have been collected in Maine since January 2006 through this manufacturer-funded product stewardship program, saving money for Maine taxpayers and communities, while keeping a large volume of waste and toxic metals out of our landfills and waste-to-energy facilities. We applaud all of the collection sites in the state for removing a record amount of toxic heavy metals from our waste stream in 2012, and hope that through continued education and outreach strategies we can reach even higher levels in years to come.



### Mercury Lamps

Based on historic sales data provided by the National Electrical Manufacturers Association (NEMA), there were an estimated 708,889 residential mercury-added lamps available for recycling in Maine in 2012. NEMA is responsible for providing containers and shipping and recycling services to voluntary retail and municipal collection sites. NEMA reported collecting 7.1% of all available lamps, while municipal waste collection sites received 21.9% of the lamps estimated to be available for recycling. Combined, these collections amount to a 29% recycling rate. This is a strong collection rate in only the second year of NEMA's program. We look forward to providing specific recommendations for program efficiency next year, when we will be better

able to assess the efforts by DEP and NEMA to promote consumer awareness of recycling opportunities and establish additional convenient collection sites throughout the state.

### Cellular Telephones

Maine law requires that cellular phones be recycled by retailers and telephone services providers, rather than by producers. Partially due to this requirement, and also because used cellular phones have market value, consumers have access to a widespread collection network of more than 775 collection sites in Maine, in addition to many web-based out-of-state collection services. This robust collection network and the nature of the cell phone industry make it difficult to measure Maine's program effectiveness because the data needed to measure program performance does not exist. However, our general sense is that a high percentage of used cell phones are, in fact, being collected for recycling, resale, or reuse. Keeping Maine's law in place helps reinforce this retailer-led recycling system.

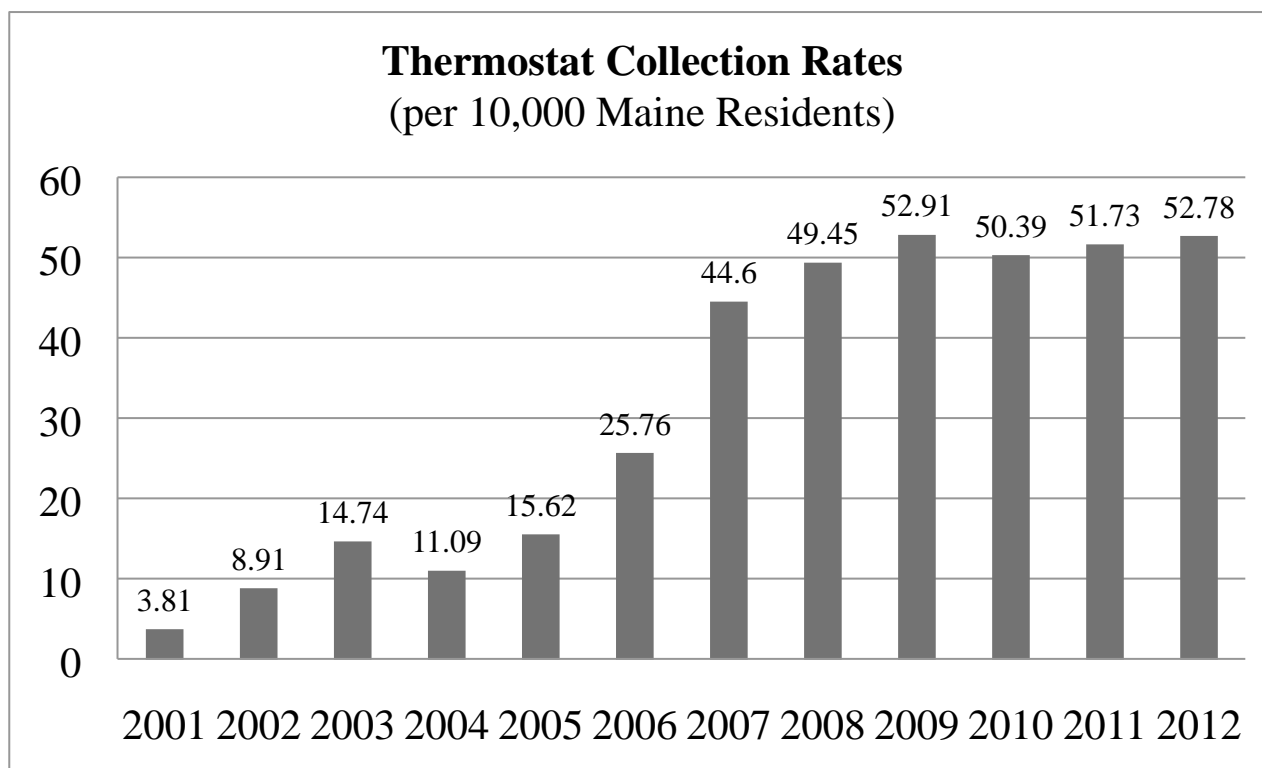
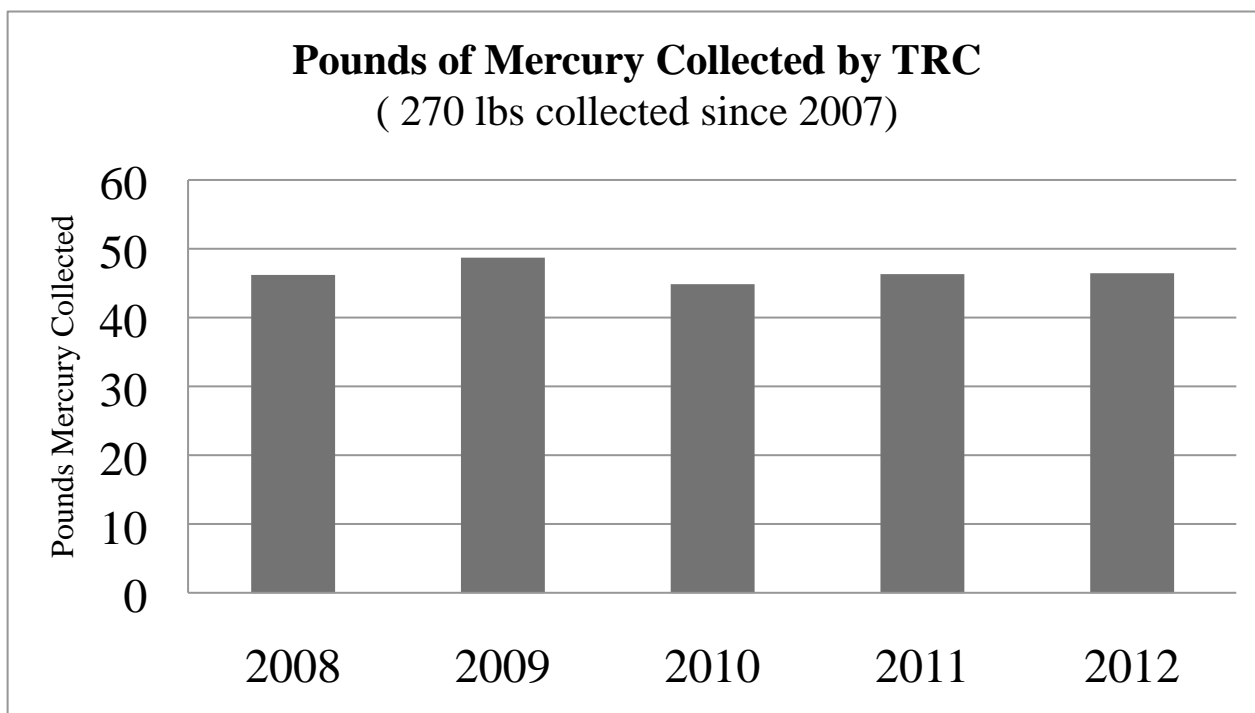
### Future Product Strategies for Carpets and Mattresses

We are pleased that the 2014 *Implementation of Product Stewardship* report identifies two product categories—carpets and mattresses—as being potential candidates for future product stewardship programs. Solid waste facility operators in Maine frequently identify these products as difficult to manage, and we believe that product stewardship programs for these materials could be effective. Currently there are limited carpet and mattress recycling facilities in the Northeast, none of which are located in Maine or New Hampshire, so we would support the idea of an integrated regional approach for these materials. California, Rhode Island, and Connecticut have enacted programs for carpets and mattresses, in some cases with the expectation that the programs will create in-state jobs for recycling these products. We support the idea of continued analysis to determine whether the volume of carpets and mattresses being disposed of in Maine is large enough to support economically feasible collection and recycling programs for these materials in hopes of relieving municipalities of the costs of managing them alone.

### Mercury Thermostats

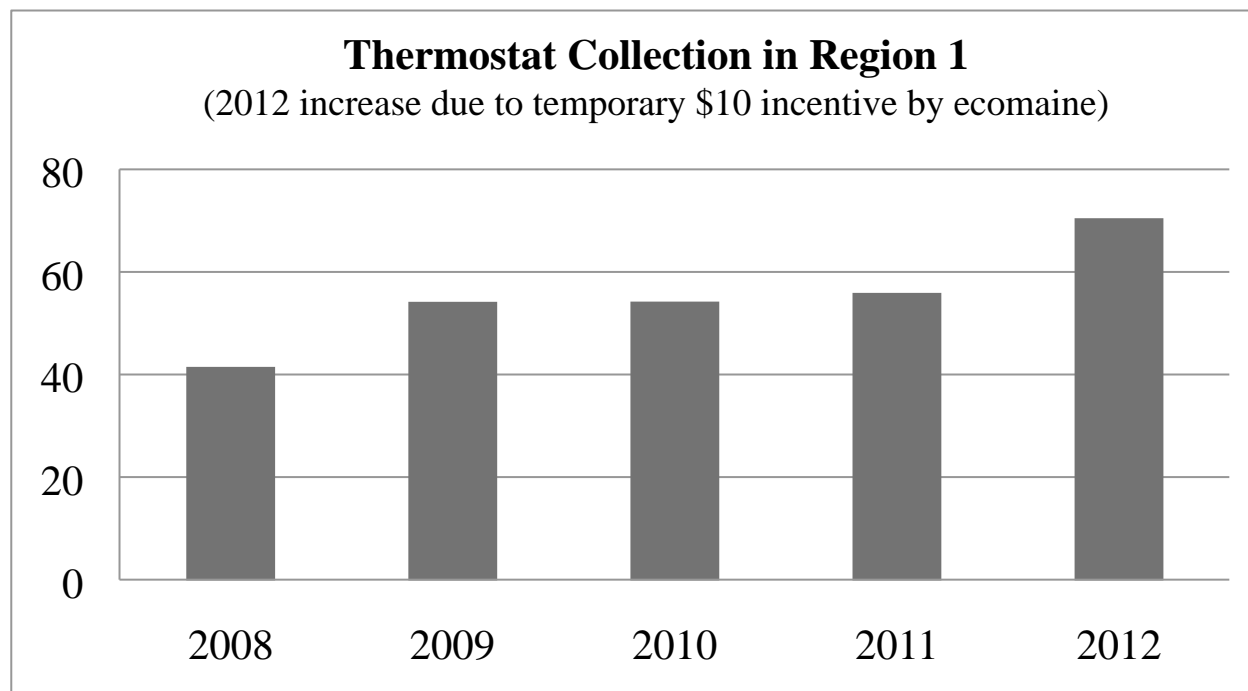
The mercury thermostat collection program has established Maine as a national leader in reducing mercury pollution. Maine has one of the highest per capita mercury thermostat collection rates in the country, well above the national average. Between 2008 and 2012, mercury thermostat recycling remained relatively stable, ranging between 49.45 and 52.91 thermostats returned per 10,000 people. Using DEP's current estimate that 27,200 mercury thermostats are removed from walls annually, we are capturing about 25% of all thermostats available for recycling. We are pleased that Maine's incentive-based thermostat collection program is preventing 45-50 lbs of mercury from entering the waste stream each year, for a total of more than 270 lbs collected from 2008-2012, **but we still are failing to collect the vast majority of mercury thermostats coming out of service each year.** Maine's thermostat collection rate greatly exceeds most other states in the country (see Appendix A), but we are falling far short of the statutory goal of collecting 160 pounds of mercury annually. Additional

work is needed, particularly in the area of education and outreach, to capture more of the mercury that still is ending up in landfills and incinerators.



One of the driving reasons why the Maine program is so successful is because in 2007 Maine began requiring that the Thermostat Recycling Corporation (TRC) provide a \$5 incentive for each thermostat returned for recycling. TRC is a non-profit organization created by the three major thermostat manufacturers to facilitate and manage the collection and disposal of mercury-containing thermostats. We know this financial incentive works because thermostat returns in Maine more than doubled after the incentive program replaced TRC's voluntary, non-incentive-based program. Also, collection data from across the country shows that the two states with incentive programs (Vermont and Maine) have the highest collection rates, far outpacing states with only TRC voluntary program (see Appendix A).<sup>2</sup>

DEP's 2014 report provides data that further substantiates the positive role of a financial incentive in boosting collection rates of mercury thermostats. Specifically, the report documents a significant increase in thermostat collections in response to a temporary program in which ecomaine (a non-profit waste management and waste-to-energy facility) supplemented the TRC's \$5 incentive with an additional \$5 (for a total \$10 incentive).<sup>3</sup> This led to a significant increase in the number of thermostats turned in through municipal household hazardous waste collections in that region, as seen in the chart below, which shows the collection rate per 10,000 in Region 1 (York and Cumberland counties). Ecomaine's increased incentive program operated in this area, further demonstrating the significant positive effect that a financial incentive has had on the rate of return of mercury thermostats in Maine.



While we highlight the success of Region 1 (York and Cumberland counties), we also want to draw attention to the relative shortcomings of thermostat collection rates in some of Maine's

<sup>2</sup> Data from *Turning up the Heat II*, p. 10-11.

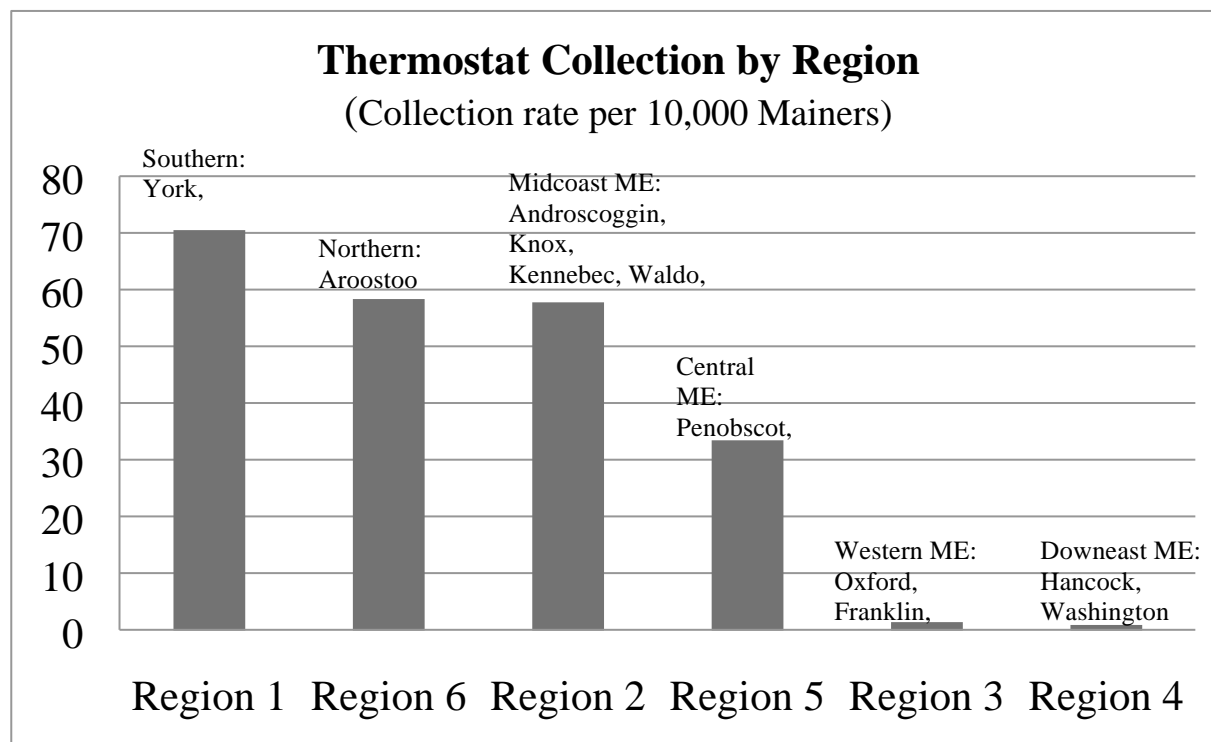
<sup>3</sup> The additional incentive was provided by ecomaine pursuant to a Supplemental Environmental Project agreed to with DEP in response to an air emission violation by ecomaine.



other regions (As demonstrated in the figure below, Regions 3 (Oxford, Franklin, and Somerset counties) and 6 (Hancock and Washington counties) have experienced very low rates of collection when compared with other parts of the state. These regional collection data demonstrate a continuing failure by TRC to provide the type of education and outreach program necessary to capture mercury-containing thermostats statewide. DEP has raised this issue repeatedly with TRC, to no avail, as noted in DEP’s 2013 product stewardship report:

*In 2012, the DEP urged TRC to do more targeted education and outreach in Maine, noting that no thermostats had been collected from Washington, Somerset and Piscataquis Counties, and only one shipment was received from each of four other counties (Lincoln, Sagadahoc, Hancock and Waldo). Combined, these seven counties represent approximately 20% of Maine’s population. Despite repeated requests, TRC has yet to submit an education and outreach plan, as required, for 2012.<sup>4</sup>*

Clearly, mercury thermostats are being removed from homes and businesses statewide, but TRC’s education program is not reaching the HVAC contractors, electrical wholesalers, homeowners, and other target audiences that DEP has felt is necessary to achieve higher collection rates.



NRCM is concerned that TRC’s failure to provide an education and outreach program specific to Maine’s incentive-based thermostat collection program is beginning to undermine the effectiveness of the entire program. Data in TRC’s 2014 Maine Thermostat Recycling Program Annual Report, submitted to DEP on January 30, 2014 (after DEP’s 2014 product stewardship

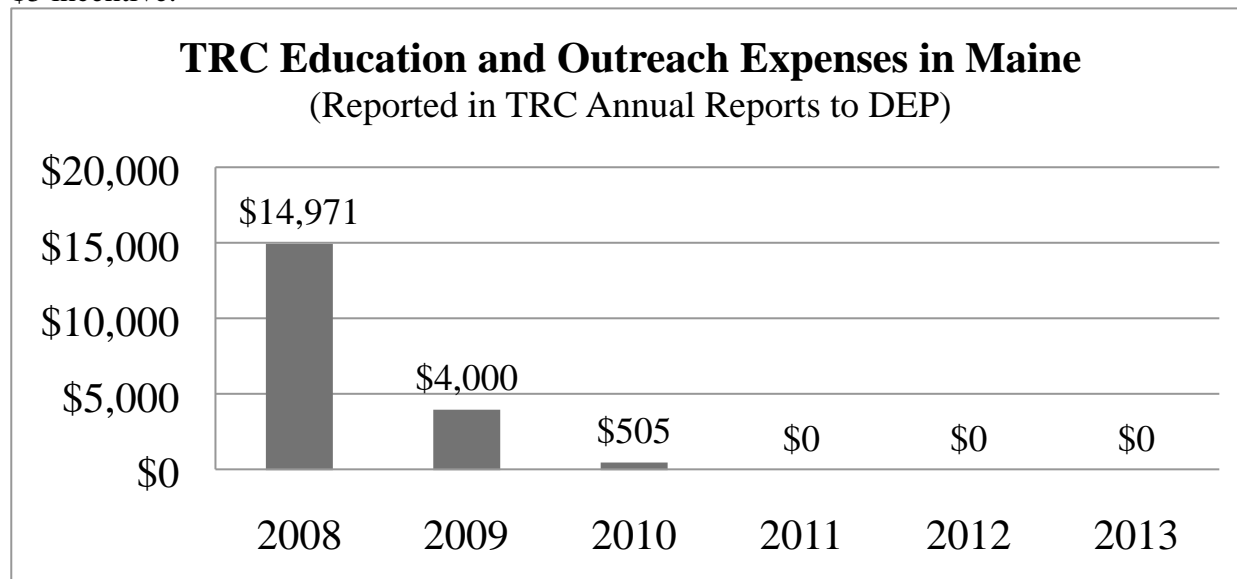
<sup>4</sup> Implementing Product Stewardship in Maine, Report to the Joint Standing Committee on Environment and Natural Resources, Department of Environmental Protection, p.13.

report was finalized and posted for comment) shows a substantial and sudden 40% decrease in the total number of thermostats collected by TRC, translating to a significant drop in the recycling rate from 24.56% in 2012 to 14.83% in 2013.

TRC has had a long history of working against Maine's incentive-based thermostat program. TRC opposed the original Maine law, has spent substantial sums in other states lobbying against proposed laws similar to Maine's<sup>5</sup>, advocated with DEP in 2011 to repeal Maine's incentive based program,<sup>6</sup> and made it difficult for contractors who return thermostats to wholesalers from getting their incentive payments. And even now, in their 2013 annual report, TRC claims that Maine's program is ineffective – completely ignoring data showing that the two states in the U.S. with incentive-based collection programs (Maine and Vermont) have the highest collection rates in the country.

In contrast, TRC's exclusively voluntary recycling program, implemented in most other states, continues to report anemic collection rates. As an example, in 2011, TRC's program in Texas (a state with 20 times Maine's population) collected less than 5,000 thermostats total, compared with 6,700 thermostats collected in Maine that year due to our more successful \$5 incentive.<sup>7</sup>

The TRC's annual reports to the DEP since 2008 show that TRC is not providing the education and outreach that is needed for Maine. For the past three years, TRC reported spending \$0 (or very close to that) on Maine-specific outreach and education. TRC claims that their national education campaign is sufficient for Maine's needs, but this is not the case. The \$5 incentive that is a primary feature for Maine's program, and which demonstrably is the reason why we have such high collection rates, is barely mentioned in any of TRC's educational materials. Out of 14 exhibits of education and outreach materials in TRC's 2013 annual report, only two reference the \$5 incentive.



<sup>5</sup> Honeywell, for example, spent more than \$90,000 in New York State alone to defeat legislation similar to Maine's. [http://www.nypirg.org/pubs/enviro/toxics/2011.12.21\\_NYPIRG\\_Honeywell\\_Report.pdf](http://www.nypirg.org/pubs/enviro/toxics/2011.12.21_NYPIRG_Honeywell_Report.pdf)

<sup>6</sup> See: <http://www.nrcm.org/news/nrcm-news-releases/nrcm-report-internal-documents-reveal-excessive-industry-influence-on-dep-report/>

<sup>7</sup> Turning Up the Heat II, April 2013.

After waiting for TRC to deliver a Maine-specific education and outreach program for more than five years, the Legislature should wait no longer. The mercury-added thermostat collection law, §1665-B., outlines the manufacturer's responsibility with regards to the product stewardship program. We are concerned that the statute does not set adequate standards for education and outreach by the manufacturers, but merely states that they must provide in their annual report: "*a description of the education and outreach strategies employed during the previous calendar year to increase participation and collection rates and examples of education and outreach materials used.*" Experience has shown that this provision allows TRC to do very little in the way of working to increase participation and collection rates in Maine's incentive-based program. The message in Maine needs to be specific to Maine's program, particularly to those collection methods (e.g., through retail collection sites) where the 2013 data shows a decline. We believe that the only way that TRC will change its education and outreach strategy in a fashion that ensures a higher level of mercury thermostat collection in Maine is if they are required to do so through a statutory directive. **As such, we recommend that the Legislature require TRC to conduct a campaign that is unique to the needs of the State of Maine. Our proposed amendment is contained in Appendix B.**

**NRCM also recommends that the Legislature amend the thermostat recycling law to require TRC to finance a study aimed at estimating both the number of mercury-containing thermostats that remain in homes and businesses, and the number being removed annually.** Both DEP and TRC seem to recognize the importance of such a study. DEP's 2014 product stewardship report identifies the need to improve data so that the department understands whether the statutory performance goal of removing 160 lbs. of mercury per year is appropriate. At present, we are falling far short of this goal. Similarly, TRC's 2013 annual report states that they would welcome the opportunity to discuss ways of better understanding how well the program is doing, although they offer no proposal for doing so.

California addressed this issue by statutorily requiring TRC to complete a third-party study that would result in a statistical assessment of the number of mercury thermostats remaining in homes and businesses, and the number being removed annually. The California study was completed in 2009, with a conclusion that California still had an estimated 7.2 million mercury-containing thermostats statewide.<sup>8</sup> The same consulting firm that did the California assessment recently completed a privately funded analysis for Illinois, which estimated that 1.86 million mercury-containing thermostats are still on the walls of homes and businesses in Illinois. Both of these studies include estimated levels of retirement (outflow) of mercury-containing thermostats, declining over time. For example, the Illinois study concluded that about 100,000 mercury-containing thermostats would be removed from buildings annually in the five-year period 2014 through 2019, while only about 12,000 would be removed annually in the period 2045 to 2049.

Data such as this would be extremely useful for setting performance goals for Maine's thermostat collection program. Indeed, without such a study, it is difficult to know where we are in relation to the statutory objective in Maine's thermostat recycling law, which requires that "A maximum rate of mercury thermostat collection is achieved"<sup>9</sup> and that "The capture rate of out of

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<sup>8</sup> [http://www.dtsc.ca.gov/HazardousWaste/upload/TRC\\_SERA\\_123009.pdf](http://www.dtsc.ca.gov/HazardousWaste/upload/TRC_SERA_123009.pdf)

<sup>9</sup> §1665-B .2.A (1)

service mercury added thermostats is maximized.”<sup>10</sup> Once a study is completed that estimates the standing stock of mercury-containing thermostats, and how many are being retired annually, then the Legislature and DEP will be in a position to revisit and update the performance goals currently in Maine’s thermostat collection law. Our proposed amendment is provided in Appendix C.

**Concluding Remarks:**

Overall, NRCM believes that DEP’s 2014 product stewardship report to the Legislature strongly validates Maine’s product stewardship programs, demonstrating that these laws are succeeding and providing substantial benefits to Maine people and our environment. We look forward to the implementation of the Architectural Paint program over the next year and a half, and also hope that the Legislature will consider including the Beverage Container program (aka “bottle bill”) in the list of existing product stewardship programs covered by this report. In so doing, future reports would include seven product stewardship programs that Maine can be proud of. Although Maine’s thermostat collection program has been a national leader in removing mercury from the waste stream, we are concerned that collection rates during 2013 are declining due to TRC’s inadequate education and outreach program. NRCM’s proposed legislative changes will help restore strong collection rates for mercury thermostats in future years, while also providing information that enables lawmakers to set appropriate performance goals based on a clear understanding of the baseline of thermostats still in Maine buildings and the number being removed annually. Thank you for the opportunity to provide these comments. We request that these comments be submitted to the Legislature with the 2014 report.

Sincerely,

A handwritten signature in cursive script that reads "Sarah Lakeman".

Sarah Lakeman  
Sustainable Maine Policy Advocate  
Natural Resources Council of Maine

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<sup>10</sup> §1665-B.4.A.

**Appendix A – Incentive-Based Programs in Vermont and Maine are Top Thermostat Recycling Performers, Significantly Outpacing TRC’s Voluntary Program**

	2011		
State	Rank	Estimated Thermostats Collected	Rate Per 10,000 Residents
Vermont	1	3,579	57.2
Maine	2	6,638	50.0
Maryland	3	24,668	42.7
Minnesota	4	12,507	23.6
Wisconsin	5	10,146	17.8
Michigan	6	16,650	16.8
New Hampshire	7	2,146	16.3
Iowa	8	3,975	13.0
Rhode Island	9	1,238	11.8
Pennsylvania	10	14,715	11.6
Nebraska	11	1,880	10.3
North Dakota	12	685	10.2
Delaware	13	838	9.3
Oregon	14	3,474	9.1
Indiana	15	5,494	8.5
Kansas	16	2,082	7.3
Florida	17	12,295	6.5
Missouri	18	3,845	6.4
Illinois	19	7,749	6.0
Virginia	20	4,409	5.5
North Carolina	21	5,191	5.4
New Jersey	22	4,715	5.4
California	23	19,927	5.3
Ohio	24	5,720	5.0
Idaho	25	777	5.0
Connecticut	26	1,767	4.9
Massachusetts	27	2,830	4.3
South Carolina	28	1,880	4.1
Montana	29	388	3.9
Kentucky	30	1,701	3.9
Arizona	31	2,076	3.2
Washington	32	2,155	3.2
Colorado	33	1,227	2.4
West Virginia	34	444	2.4
South Dakota	35	191	2.4
Texas	36	4,902	1.9
New York	37	3,422	1.8
Georgia	38	1,655	1.7
Nevada	39	382	1.4
Tennessee	40	892	1.4
Louisiana	41	611	1.3
Utah	42	293	1.1
Alabama	43	403	0.8
Oklahoma	44	234	0.6
Arkansas	45	163	0.6
New Mexico	46	80	0.4

## APPENDIX B

### Amendment Requiring TRC to Implement Maine-Specific Education and Outreach Program

**38 MSRS §1665-B. Mercury-added thermostats.** Amend 2B and 2G to read as follows:

**2. Manufacturer responsibility.** Each manufacturer of mercury-added thermostats that have been sold in this state shall, individually or collectively:

B. Implement a comprehensive education and outreach program that prominently informs the public about the specific financial incentive provided when mercury-added thermostats are returned for recycling, the importance of properly managing out-of-service mercury thermostats, and opportunities for the collection of those thermostats. Education and outreach efforts shall annually include, but not be limited to, the following:

- 1) Signage, such as posters that can be prominently displayed to promote the collection of out-of-service mercury thermostats to contractors and consumers;
- 2) Public service announcements distributed to radio and television media throughout Maine promoting collection and proper management of out-of-service mercury thermostats, copies of which shall be provided to the Department;
- 3) Written materials or templates of materials for reproduction by thermostat wholesalers and thermostat retailers to be provided to customers at the time of purchase or delivery of a thermostat.
- 4) A publicly accessible website for the dissemination of educational materials to promote the collection of out-of-service mercury thermostats. This website shall include templates of the educational materials in a form and format that can be easily downloaded and printed, and a short video showing how to turn in mercury thermostats and receive the \$5 incentive. The link to this website shall be provided to the Department;
- 5) Communications at least four times a year to thermostat wholesalers to encourage their support and participation in educating their customers on the importance of and statutory requirements for the collection and proper management of out-of-service mercury thermostats;
- 6) Strategies to encourage participating thermostat retailers to educate their customers on the importance of and opportunities for collecting and recycling out-of-service mercury thermostats;
- 7) Creation and maintenance of a web-based program that allows contractors and consumers to identify collection sites for out-of-service mercury thermostats by zip code in the state;
- 8) Preparation and semi-annual mailing to licensed HVAC technicians of a postcard or other notice that provides information on the collection program for out-of-service mercury thermostats; and
- 9) Informational articles, press releases, and news stories pertaining to the importance of and opportunities for collecting and recycling out-of-service mercury thermostats and distribution of those materials to trade publications, local media including weekly publications throughout Maine, and stakeholder groups.

Manufacturers shall consult with the Department on the content of these materials prior to finalizing and distribution.

G. Beginning in 2008, submit an annual report to the Department by January 30th of each year. The report must be submitted on a form provided by the Department and must include at a minimum:

- (1) The number of mercury-added thermostats collected and recycled by that manufacturer pursuant to this section during the previous calendar year;
- (2) The estimated total amount of mercury contained in the thermostat components collected by that manufacturer pursuant to this section;
- (3) An evaluation of the effectiveness of the manufacturer's collection and recycling program and the financial incentive provided pursuant to paragraphs E and F;
- (4) An accounting of the Maine specific administrative costs incurred in the course of administering the collection and recycling program and the financial incentive plan developed pursuant to subsection 4;
- (5) A description of the education and outreach strategies employed during the previous calendar year, and changes to the program design and education and outreach planned for the current year to increase participation and collection rates and examples of education and outreach materials used to inform potential program participants of the financial incentive provided when mercury-added thermostats are returned for recycling, the importance of properly managing out-of-service mercury thermostats and opportunities for the collection of those thermostats.

## APPENDIX C

### **Amendment Requiring TRC to Fund a Study to Estimate the Baseline Number of Mercury Thermostats in Maine and the Number Being Retired Annually**

#### **38 MSRS §1665**

We recommend that the Legislature require TRC to fund a study in Maine that is similar to the ones completed in California, Illinois, and Rhode Island. This can be accomplished by adding a new provision to 38 MSRS §1665-B that would require a study and provide a process for the Legislature to establish new performance goals that would replace the current goals in the law, as follows:

6. Assessments **and Establishment of New Performance Goals.** On or before July 1, 2014, a manufacturer, or a group of manufacturers operating a program, shall develop and present to the Department for approval after an opportunity for stakeholder comment a survey plan, and methodology for a survey, to provide statistically valid data on the number of mercury-added thermostats that become waste annually in Maine each year until 2036. The manufacturer or group of manufacturers shall complete the survey by January 1, 2015 and present the results of the data to the Department by January 15, 2015. After reviewing these data, the Department shall by March 15, 2015 provide to the joint standing committee of the Legislature having jurisdiction over natural resources matters recommendations for annual performance goals, and program changes that it deems necessary to meet the proposed performance goals, that could be included in statute to help achieve the collection and recycling of the maximum feasible number of out-of-service mercury-added thermostats. The joint standing committee of the Legislature having jurisdiction over natural resources is authorized to report out legislation to establish such goals.





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[www.sleepproducts.org](http://www.sleepproducts.org)

February 14, 2014

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

Re: Comments on February 2014 report, *Implementation of Product Stewardship in Maine*

Dear Mr. MacDonald,

The International Sleep Products Association (ISPA) is the trade association for mattress manufacturers and component suppliers to the industry. ISPA has served as the voice of the mattress industry for nearly 100 years. We appreciate the opportunity to comment on the Department of Environmental Protection's (DEP) February 2014 report, *Implementation of Product Stewardship in Maine*.

ISPA and its members are committed to promoting both sustainability in our manufacturing practices and the proper recycling of discarded mattresses. Our industry is increasing the amounts of natural and renewable materials used in our products, and continues to seek and adopt environmentally friendly practices to manufacture its products. Since at least the 1990s, we also have worked with governments, non-profits and private companies to encourage the development of used mattress recycling facilities. As recently as seven years ago, there were only three or four mattress recyclers in operation. Today, over 30 used mattress recycling facilities are operating in North America.

As noted in the report, California, Connecticut and Rhode Island each enacted mattress recycling laws in 2013. ISPA was at the forefront of these efforts, advocating for sensible legislation that creates an efficient and practical industry-led mattress recycling system in each state. To implement these laws, ISPA has created the Mattress Recycling Council, a non-profit organization that is developing and will administer each state's mattress recycling programs.

We are now engaged in the formidable process of implementing these new recycling laws. This is a significant challenge because these are the first mattress recycling laws in the nation, and we must plan and launch new recycling programs in three separate states (including California, whose economy is the 12<sup>th</sup> largest in the world) over the next 24 months. At this point, the mattress industry is completely focused on designing and launching these programs, and as a consequence does not have the ability to develop additional state mattress recycling programs at this time.

I would also like to clarify the report's description of how each of these recycling laws will be funded. In each state, the program will be funded through a visible fee charged on each mattress unit sold in the state. In

*The Voice of the Mattress Industry™*

California, this fee will be charged by retailers to consumers and remitted directly to the organization administering the program. The Connecticut and Rhode Island laws allow for essentially the same process.

In conclusion, the mattress industry has taken numerous voluntary steps to promote sustainable practices and mattress recycling. The industry is fully engaged in implementing the three new state mattress recycling laws enacted in 2013 to make sure these programs are sustainable and successful. As you can see, the industry is very active in addressing this issue and we do not feel that mandatory programs are needed at this time. We will continue to keep DEP informed as we proceed with these efforts.

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ch B Hudgins'.

Christopher B. Hudgins  
Vice President, Government Relations & Policy  
International Sleep Products Association



February 14, 2014

George MacDonald  
Director, Division of Sustainability  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, ME 04333-0017

**UPSTREAM Comments on the Maine Department of Environmental Protection's 2014 Report to the Legislature, Implementation of Product Stewardship in Maine**

Dear Mr. MacDonald,

My name is Matt Prindiville. I live in Rockland, Maine, and I'm the Associate Director for UPSTREAM (formerly the Product Policy Institute). We are a national environmental policy organization dedicated to creating a healthy, sustainable and equitable society by addressing the root causes of waste. For the past decade, we have been the leading public interest voice advocating for extended producer responsibility (EPR) in the United States. We helped develop and support local government product stewardship councils in nine states. We also founded and coordinate the CRADLE2 Coalition, a national network of public interest groups working for green design and comprehensive recycling of consumer products, which includes four organizations from Maine.

Prior to joining UPSTREAM, I worked as Clean Production Project Director for the Natural Resources Council of Maine, where I helped pass five product stewardship laws for electronics, mercury-containing products and the framework law, to which the report pertains. I have produced comments for the last three product stewardship reports and am submitting the following for review by the Department and the Committee on the Environment and Natural Resources in the Maine Legislature.

- 1. The report offers solid analysis of Maine's product stewardship laws, and there is strong data signifying their relative success.** Maine is a rural state and doesn't benefit from the economies of scale in more urbanized states with higher population density and more infrastructure. The fact that Maine's per-capita e-waste recycling rate ranks in the top five in the United States is a strong testament to the success of the initiative. In addition, with the rechargeable batteries and auto-switches programs each seeing some of their highest recycling rates to date, it is clear that these initiatives are also delivering results as intended.
- 2. While the report mentions evaluating mattresses and carpet product stewardship programs in other states, it is unclear why the Department has not recommended any new product categories for consideration by the legislature.** The International Sleep Products Association, representing mattress manufacturers, supported successful product stewardship bills in Connecticut, Rhode Island and California last year. In 2010, the Carpet

America Recovery Effort, representing carpet producers, supported product stewardship legislation in California, which has increased the amount of carpet recyclers from two to sixteen, creating many new entrepreneurial opportunities and jobs. In addition, the alkaline battery industry has developed an industry-supported product stewardship program, and they are backing bills in California, Vermont and Minnesota this legislative session. Why has the Department failed to include these bills for consideration when there is broad industry support? The Department should have at least included some analysis and recommendations related to these relatively non-controversial, industry-supported bills in the report.

3. **While the thermostat recycling rate has significantly improved since the addition of the \$5 bounty in 2007, it has remained relatively flat over the last five years, and is nowhere near approaching the goals laid out in the original legislation.**

In order to boost the program's effectiveness, we recommend that the Department and the Legislature implement the following strategies, outlined in detail by the Natural Resources Council of Maine in their comments:

- a) **Amend the thermostat product stewardship law to include minimum outreach and education requirements:** Maine's mercury thermostat collection program, which owes its success to the financial incentive to recycle, has consistently exceeded collection rates in other states that rely solely on voluntary recycling. Unfortunately, the Thermostat Recycling Corporation (TRC) has a long history of undermining Maine's program by claiming that the incentive does not boost collection rates, and they have purposefully neglected to emphasize the financial incentive in their education and outreach activities. Furthermore, the TRC has reported to place little value on education and outreach strategies that are specific to the needs of our unique state, and as a result of this lack of effort over the past three years the collection rates in our retail sector declined significantly in 2013. We believe it is necessary for the Legislature to provide statutory guidelines to ensure that proper education and outreach strategies are implemented so that collection rates don't continue to fall.
- b) **Require an inventory study to set performance goals:** Maine has a statutory goal to collect 160 pounds of mercury annually from the mercury-thermostat collection program. This goal was derived from an outdated 2000 census that had assumed that 1 out of 30 mercury thermostats come off the wall each year, and contained about 3 grams of mercury each. After consistently reaching only about 15% to 25% of our statutory goal each year, and learning from other mercury thermostat collection standards across the nation over the past 14 years, we believe it is time to reassess our current goals. Other states such as California, Illinois, and Rhode Island have based their collection goals on a statistical inventory study implemented by a third-party. These inventory studies statistically estimate the current number of mercury thermostats remaining on the walls, the rate at which they become available for collection, and the estimated decline in remaining thermostats over time. Their statutory goals and performance standards are based on these estimates. We need more reliable data for both DEP and TRC to evaluate the program performance and areas on which to focus education and outreach efforts. We

believe that the Legislature should either raise funds needed to hire a third party or follow California's lead and require the TRC to fund an inventory study in Maine.

4. **In the lamps program plan for the upcoming year, DEP should require covered lamps manufacturers to demonstrate which additional strategies that they will employ to meet a higher recycling rate for 2014.** The 29% recycling rate in the first year of the new lamps program is a good start, and NEMA should be commended for a successful rollout. However, if new strategies are not developed and employed, it is unlikely that the program will achieve the much higher recycling rate needed to prevent mercury pollution from these products.
5. **As part of the stated goals of “greater efficiency and effectiveness,” the Department should amend the producer requirements in the framework law (§1776) to:**
  - a. **Institute metrics to determine consumer awareness of the availability of product stewardship programs.**
  - b. **Create convenience standards to ensure that all Maine people have appropriate access to them.**
  - c. **Establish recycling goals and timelines to ensure continuous improvement and robust performance.**

The amendment language passed last year stipulates some further producer requirements in planning and reporting relating to convenience and outreach/education, but does not establish any meaningful metrics for determining if goals have been met. Increasingly, product stewardship legislation includes measurable outcomes in consumer awareness, convenience standards and recycling goals and timelines to determine the success of the programs in question.

6. **As Maine's bottle bill clearly meets the definitions of a product stewardship law, the report should include the beverage container recycling program in the product stewardship report and relevant web pages,** and include beverage containers in the statewide recycling rate. This would also support efforts to standardize this data nationwide.
7. Lastly, as part of the process outlined in the framework legislation, **we believe the Department should be soliciting information on new potential product categories, helping the Legislature understand what products are being brought under EPR programs throughout the rest of North America, and determining what products are most important to Maine municipalities and citizens.** The information regarding product stewardship in North America is readily accessible through the Product Stewardship Institute's and UPSTREAM's websites. The Department made a small step in this direction by suggesting that they will be evaluating regional approaches to managing spent carpet and mattresses. DEP now needs to take the additional step, as outlined in the framework law, of proposing new legislation to codify this commitment. With industry support for mattress, carpet and battery product stewardship bills, there is no reason for the Department to wait.

Thank you for the opportunity to provide these comments. We appreciate the good work of the Department in advancing product stewardship in Maine to protect our environment and grow our economy.

I would be happy to answer any questions that the Department or Committee members may have. I can be reached at 207-902-0054, or [matt@upstreampolicy.org](mailto:matt@upstreampolicy.org). I would also be willing to draft or suggest legislative language related to my comments.

All my best,

A handwritten signature in blue ink, appearing to read "Matt Prindiville".

Matt Prindiville  
Associate Director

