



Product Stewardship in Maine

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Protecting Maine's Air, Land and Water

What is Product Stewardship?

- All participants involved in product life cycle share responsibility for impacts to human health and environment resulting from production, use, and end-of-life management
- Participants with greater influence have greater share of responsibility
- Product Stewardship laws that make it mandatory for manufacturers to share responsibility are known as Extended Producer Responsibility (EPR).
- EPR relieves some of the financial burden on the public sector for end-of-life product management



Beverage Container Redemption Program

- Implemented in 1978
- Initiators of deposit internalize costs of end-of-life management
- No disposal ban
- Estimated 38,100 tons recycled in 2015:
 - 26,000 glass, 5,000 aluminum, and 7,100 plastic
- 80-90% of covered beverage containers redeemed for deposit
 - Non-deposit states approximately 24% recycling rate for beverage containers



Key Benefits:

- Litter reduction; containers picked up for redemption
- Job creation through redemption centers
- Bottle drives serve as fundraising tool
- Reliable source of clean, sorted materials

Rechargeable Batteries



- Implemented in 1994
- Manufacturers internalize costs
- Disposal ban for businesses only
 - Residents strongly encouraged to recycle
- Voluntary collection sites (retail, municipal)
- 34,965 pounds of material recycled in 2015

Key Benefits:

- Prevents release of lead, cadmium, sulfuric acid, and potassium hydroxide into the environment
- Metals are reclaimed for production of new products
- Reduces financial burden of end-of-life product management on municipalities

Mercury Auto Switches

- Implemented in 2003
- Manufacturers internalize costs
- Disposal ban
- Vehicle dismantlers able to participate in End-of-Life Vehicle Solutions (ELVS) program
 - Free collection bucket with pre-paid shipping label
 - \$4 for each switch collected

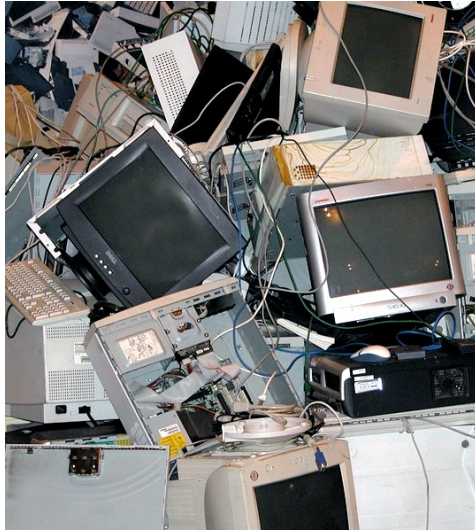


Key Benefit:

- Prevents release of mercury into the environment – 117.3 pounds recovered since 2003



Electronic Waste



- Implemented in 2006
- Manufacturers internalize costs
- Disposal ban on CRTs and flat screens containing mercury
- 6,328 tons (9.2 lbs. per capita) recycled in 2015

Key Benefits:

- Prevents release of lead and mercury into the environment
- Conserves valuable resources, including rare earth metals
- Nearly all materials are recycled into new products
- Reduces financial burden of end-of-life product management on municipalities

Mercury Thermostats

- Implemented in 2007
- Manufacturers internalize costs
- Disposal ban
- Wholesaler (mandatory), retail, contractor, and municipal (voluntary) collection sites
 - Free container with free shipping
 - \$5 incentive for each thermostat recycled
- 5,142 mercury thermostats recycled in 2015
 - 4,571 through manufacturers, 571 through other Maine facilities



Key Benefits:

- Prevents release of mercury into the environment
 - 35 pounds in 2015, 445 pounds overall
- Sales ban may have accelerated development of non-mercury alternatives

Cell Phones



- Implemented in 2008
- **No EPR Mandate**
- Service providers report annually on cell phone recycling activities
- Cell phone retailers must offer free recycling
- Disposal ban
- Robust collection network at retail stores and via free online services
- Thriving reuse market for used cell phones

Key Benefits:

- Reduces financial burden of end-of-life product management on municipalities
- In 2016, the cell phone recycling and reuse market had:
 - \$838 million in revenues, 394 businesses, and 4,384 jobs



Mercury Lamps



- Implemented in 2011
- Manufacturers internalize costs
- Disposal ban
- Voluntary collection sites (retail, municipal)
 - Free lamp boxes, free shipping
- Estimated recycling rate of 33.71% in 2015:
 - Manufacturers - 135,314 lamps (12% of available)
 - Other facilities in Maine - 244,791 lamps

Key Benefits:

- Prevents release of mercury into the environment
 - Manufacturer program: 15.9 pounds in 2015
 - Statewide total collections: 44.6 pounds in 2015
- Reduces financial burden of end-of-life product management on municipalities

Architectural Paint

- Implemented in 2015
- Consumer pays point-of-sale fee based upon container size (\$0.35-\$1.60)
- Convenient voluntary collection sites (93.5% of population within 15 miles of a paint drop-off site)
- Free storage bins and pickup of paint for sites
- In 2015, 88,712 gallons of latex and oil-based paint collected for recycling and fuel blending



Key Benefits:

- Decreases financial burden on municipalities managing liquid paint waste
- Paint is recycled or used as fuel instead of disposed of
- Some retail collection sites note increased business

EPR and the Circular Economy



EPR supports circular economy by:

- Preserving quality material for use in product manufacturing
- Creating a level playing field – manufacturers must take responsibility for products they create at end-of-life
- Encouraging design for recycling and elimination of toxics in products
- Laws may include provisions to prevent waste generation and encourage the sharing economy



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