



White Paper

Extended Producer Responsibility (EPR) for Packaging & Paper Products

Prepared by the Northeast Waste Management Officials' Association (NEWMOA) &
the Northeast Recycling Council (NERC)

April 2020

Goal of this Document

The goal of this White Paper is to provide state officials, policymakers, and affected industries with a baseline of shared knowledge about Extended Producer Responsibility (EPR) for packaging and paper products (PPP).

The [Northeast Committee on the Environment](#) (NECOE), a program of the Coalition of Northeastern Governors (CONEG), requested that NEWMOA and NERC provide information about EPR for packaging and paper products to help them and other state officials consider options for EPR for PPP. This White Paper is not intended to cover all aspects of EPR for packaging and paper products, but rather to provide an overarching understanding of the system structure and design, requirements, and benefits.

NEWMOA and NERC have published a short introductory [Fact Sheet on EPR for Packaging and Paper Products](#), and this White Paper is designed as a companion resource to provide more in-depth information about existing programs and proposals.

Background

According to the [most recent U.S. EPA estimates](#) for 2017, approximately 55 percent (more than 147 million tons) of the municipal solid waste (MSW) that was generated in the U.S. was composed of product packaging and paper products (PPP).¹ This includes plastic containers, steel and aluminum cans, plastic film, glass bottles and containers, newspapers, printed paper, magazines, multi-material packages, and corrugated cardboard. In total, about 50 percent of

¹ See Table 4 at https://www.epa.gov/sites/production/files/2019-11/documents/2017_facts_and_figures_fact_sheet_final.pdf (pages 11- 12). According to EPA's figures, there was 267.79 million tons of MSW generated in the U.S. in 2017 (the latest year for which they have published data). About 67 million tons of Paper and paperboard in non-durable goods; and about 80 million tons of containers and packaging for a total of about 147 million tons or 55 percent of total MSW.

containers and packaging were recycled in 2017. According to EPA, about 13 percent of plastic packaging was recycled.²

Over the past decade, the composition of municipal solid waste (MSW) has been evolving away from newsprint, office paper, and glass containers and towards more plastic packaging and corrugated cardboard. At the same time, the trend toward lightweighting of aluminum, steel, and plastic containers to reduce raw material usage and shipping costs is decreasing the total weight of the waste stream. Packaging innovation has produced lightweight multi-layer packaging, multi-resin pouches, and more products in shelf-stable aseptic cartons (e.g., beverages and soups). The changing waste stream means Materials Recovery Facilities (MRF) are processing bulkier and lighter materials, which leads to higher operating costs.

Increasingly in the northeast and elsewhere in the U.S., recycling has transitioned from a dual stream to a single stream or mixed collection system. These programs collect all recyclables in one container. The momentum behind single stream programs was driven by haulers and municipalities due to their convenience, decreased cost, and ease of participation. Trash, including food waste, is collected separately. When single stream began, residential recycling programs were collecting a narrower range of materials than are now usually accepted. Single stream programs typically result in more recyclables being collected, but they have also led to a significant rise in contamination of the recyclable materials. Contamination drives up processing costs, limits the ability to market recyclables, and decreases the value of what is recycled.

Like other commodities, recyclables have always been subject to market fluctuations. Since the early 2000's, China has become a significant market for mixed paper and mixed plastic recyclables that are collected in residential recycling programs. The [Chinese Government's recent policies](#), which impose strict standards on the imports of recyclable commodities, are having a dramatic impact on recycling across the U.S. The policy bans the import of mixed paper and plastic unless they meet virtually unachievable contamination limits. The recycling industry has been forced to find alternative markets for the materials China will no longer accept.

The [northeast](#)³, like other parts of the country, has been significantly impacted by the downturn in the value of recycling end-markets. Cities and towns are feeling the impact of these market changes as MRF operators seek to alter contracts, charge more for their services, and end revenue sharing. This also comes at a time when landfill tipping fees are increasing.⁴ In a few communities, recycling programs have been suspended, or certain materials are no longer accepted. Glass is the most common material to suffer this fate.

These changes are primarily concentrated in the northeast states that do *not* have mandatory recycling or disposal bans that effectively prohibit the dropping of certain materials, including Maryland and New Hampshire, or for whom transportation costs to end-markets are particularly prohibitive.

² https://www.epa.gov/sites/production/files/2019-11/documents/2017_facts_and_figures_fact_sheet_final.pdf, Table 4.

³ Northeast covers Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania and Vermont.

⁴ <https://www.wastetodaymagazine.com/article/eref-releases-analysis-national-msw-landfill-tipping-fees/> & https://erefdn.org/wp-content/uploads/2017/12/MSWLF-Tipping-Fees-2018-Rev.ed_.2019.pdf.

An additional phenomenon is increased education for residents about what is and what is not recyclable to decrease contamination and increase the value of what is collected.

For packaging and paper products, the impacts of the market value decline have not (with the exception of glass) generally been met with eliminating these materials from recycling programs, but program costs are negatively impacted. Certain types of plastic packaging and aluminum cans are currently the highest value materials recycled in residential recycling programs. Mixed paper, which constitutes the majority by both weight and volume of what is collected in residential recycling programs has taken a dramatic decline in value; and in many instances, MRFs have to pay to recycle these materials. There are [signals](#), however, that this may change over the next two years as new domestic recycling capacity comes on line.

Apart from the market value concerns, there is a true need to be collecting more material – especially plastic food and beverage containers, as well as heavier household plastics, such as is found in detergent bottles. Many large brands have [made commitments](#) to increased use of recycled plastic content in their packaging and to make all of their packaging recyclable, reusable or compostable in recent years.⁵

Extended Producer Responsibility

Under the traditional waste management system in the U.S., brand owners/manufacturers sell products to consumers but have no responsibility for recovering or recycling products or packaging. In most areas, taxpayers bear the burden for managing waste, including the cost of recycling, regardless of how much material they produce.

Extended producer responsibility (EPR) is a term used to describe laws that mandate responsibilities for manufacturers/brand owners for the end-of-life management of their products. There are a few important features of EPR:

- Shifting end-of-life financial and sometimes physical responsibility to the producers and away from the public sector
- The possibility of providing incentives to producers to incorporate environmental considerations into the design of their products and packaging through eco-modulation⁶

Under an EPR system, consumers purchase products from brand owners and then these entities finance collection, recycling, and, if not recyclable, management of their products. There are different models for how such a program can be implemented and funded, but a common strategy (in Canada and Europe) is the use of a Producer Responsibility Organization (PRO), which is funded and managed by brands and manufacturers.

There are at least 25 EPR programs that are currently operating in the northeast U.S. and new ones being proposed and enacted every year. So far, these programs cover mattresses; paint; electronics; mercury-added lamps, switches, and thermostats; certain types of batteries; and

⁵ <https://sustainablepackaging.org/goals/>.

⁶ “With ‘eco-modulation’ OEMs producing devices deemed environmentally unfriendly would be forced to pay higher fees, and those products with lower environmental impacts would get a break on fees. ‘Recyclability’ is a significant factor in deciding a product’s environmental friendliness. The idea is to provide a financial incentive to companies to redesign products to reduce their impacts. The concept is also being applied to other materials, particularly plastics.” Source: <https://resource-recycling.com/e-scrap/2019/08/15/eu-seeks-to-incentivize-design-for-recycling/>.

pharmaceuticals. In recent years, there has been considerable discussion and debate in the region regarding EPR for tires, carpet, household hazardous waste, solar panels, and other product categories. Now, there is a growing focus on proposals on EPR for packaging and paper products.

Benefits of EPR

EPR programs can provide many benefits, particularly for consumers and municipalities, including:

- Dedicated, non-taxpayer funding to sustainably support collection, recovery and recycling, and management, where necessary
- Possible relief for taxpayers who pay the costs of recycling and management under the traditional system
- A more consistent and predictable system that enables states and, possibly, regions to take a more unified approach to strategic planning around recycling
- Potential for increased investment in the end-markets and recycling infrastructure
- Depending on how the program is structured, there may be incentives for producers to improve packaging design so that it is more recyclable and uses recycled content

EPR laws for PPP can provide sustainable funding for recycling by shifting the burden from governments and taxpayers to packaging and paper product producers and brand owners. These are the companies that decide what packaging and paper products are available on the market. Some EPR programs have built in financial incentives (briefly described below) for producers to design their packaging and paper products to be recyclable, conserve materials, and incorporate recycled content into new PPP.

Canadian Provinces with EPR programs for packaging and paper products have increased recovery rates, reduced confusion about what to recycle (and consequently contamination), bolstered recycling infrastructure, and grown strong markets for recycled material. For example, British Columbia's EPR program has achieved a contamination rate of just 6 percent, which is much lower than those of the U.S. states. In Europe, where EPR (for packaging only) has been established for decades, many countries have packaging recycling rates above 70 percent and even 80 percent.

The programs throughout Europe are rapidly evolving, largely in response to the latest European Union Circular Economy Package, which includes a Packaging and Packaging Waste Directive. This Directive mandates that member states to update their packaging and textile EPR programs by July 5, 2020. The Updates will include:

- Material-specific recycling targets for product packaging through 2030
- Establishment of EPR systems for all packaging, textiles, and some single-use plastics by 2025

The European Commission will strengthen the program's Essential Requirements by the end of 2020. The overall Europe-wide packaging recycling rate target is 66 percent by 2025 and 70 percent by 2030. They have set ambitious 2025 and 2030 targets for different types of packaging materials. They have also set ambitious 2025 and 2030 targets for different types of packaging materials.

Other incentive programs that are common in the U.S., such as container deposit laws (commonly called bottle bills), minimum recycled post-consumer recycled content standards,

and restrictions on single-use plastics can complement EPR to further improve recycling systems.

Recently introduced U.S. federal legislation, called the “Break Free from Plastic Pollution Act”⁷ spearheaded by Senators Tom Udall and Representative Alan Lowenthal, would provide a national mandate focused on reducing the amount of plastic waste and reforming the waste and recycling collection system. It would shift the burden for end-of-life management of plastic waste to the companies who make or brand the products that end up as waste by:

- Requiring producers of plastic products to design, manage, and finance waste and recycling programs (i.e., EPR)
- Incentivizing companies to make reusable products and items that can be recycled
- Creating a nationwide beverage container refund program
- Reducing and banning certain single-use plastic products that are not recyclable
- Establishing minimum recycled content requirements for beverage containers, packaging, and food-service products
- Spurring investments in U.S. domestic recycling and composting infrastructure

Possible Goals for Packaging & Paper Products EPR

There are many possible goals for EPR for packaging and paper products. Some of the most common ones include:

- Lowering costs of managing recycling for municipalities
- Incentivizing the design of packaging and products for recyclability and for increased use of recycled content
- Maximizing waste reduction, reusable packaging, and packaging that meets “recyclability” standards (meaning acceptable in local recycling programs)
- Using labels that educate residents on how to properly recycle and manage the product at end of life
- Recovering more quality materials that can be sold as commodities
- Creating capital investment in recycling end-markets and infrastructure
- Providing financial incentives to companies pioneering systems of refillable packaging

The Fundamentals of an EPR System for Packaging & Paper Products

The major program elements that need to be considered under an EPR system for PPP are:

- Defining what materials and products are covered
- Determining how it is structured (from the financing structure to the collection system)
- If a producer responsibility organization (PRO) is part of the program, decisions about the governance structure
- Role of the existing municipal collection systems, haulers, and MRFs
- Oversight by government entities of the system and its operations
- Setting performance measures and incentives

In the examples of EPR for PPP outlined below, these basic attributes are discussed.

⁷ <https://www.tomudall.senate.gov/imo/media/doc/Press%20Packet.pdf>.

Examples of EPR for Packaging & Paper Products

There are 40 plus jurisdictions around the world that have some form of EPR for paper products and/or packaging, including five (soon to be six) Canadian provinces, the entire European Union, China, Russia, Japan, and Brazil. Many of these programs have been in place for decades.

No U.S. states have yet adopted EPR for PPP, but many are exploring it, including California, Connecticut, Indiana, Maine, Massachusetts, New York, Oregon, Washington State, Washington D.C., and Vermont.

In preparing this White Paper, NEWMOA and NERC reviewed the EPR for packaging and paper products programs under development or already implemented in a selected group of jurisdictions but did not review all of the available programs. In the northeast, there have been several EPR for PPP legislative proposals, and this Paper reviews those proposed in Maine, Massachusetts, and New York as of February 2020, since they appear to be the most mature in the region. The proposed bills in these states are undergoing significant discussion and debate and will change during the legislative process. The table in [Appendix B](#) and the summary text below provide a snapshot view at a point in time. For more details on the current versions of the bills, readers are urged to consult each state's legislative website. [Appendix B](#) illustrates some of the policy similarities and differences among the current proposals in Maine, Massachusetts, and New York. The information is provided in a tabular summary as well as a "[Summary of Elements of Packaging and Paper Products EPR Legislation](#)" that the Product Stewardship Institute (PSI) published in March 2019.

The following section also provides an overview of the EPR for packaging programs in British Columbia, Quebec, and those in the European Union, highlighting some recent developments in France. As noted above, unlike the EPR laws and proposals in the U.S. and Canada, the European laws do *not* include printed paper.

Maine

The State of Maine passed a [Resolution](#), called a "Resolve to Support Municipal Recycling Programs" in 2019, requiring the Maine Department of Environmental Protection (ME DEP) to draft a legislative proposal for EPR for packaging. The expectation is that the legislation will be considered for passage in 2020. The Resolution requires that the following attributes be included in the proposal:

- Materials covered - plastic, steel, aluminum, glass and cardboard packaging that wraps or protects consumer goods, including food and personal care products, and containers and packaging used in the shipping, storage, protection and marketing of consumer products
- Exemptions for products already covered by Maine's consumer deposit law (bottle bill)
- A third-party manufacturer-sponsored organization or producer responsibility organization (PRO) be formed to implement the program
- Incentives to improve recyclability and increase recycled content

The Resolution requires that under the new system, producers would pay higher fees for packaging that is not readily recyclable. Conversely, producers of products that are highly recyclable or have high percentages of recycled content would pay less.

Maine DEP delivered a draft legislative proposal to the legislature in early January 2020. Under this proposal, producers of packaging would pay into a packaging stewardship fund based on the weight of the packaging material they distribute in the State and report to a stewardship

organization to facilitate these payments. The producer could offset some of these payments by recycling packaging of the same material type for which it is responsible, distributing less packaging, or redesigning packaging to make it more valuable in the recycling system or conform to other stewardship program incentives.

Maine DEP would select a stewardship organization (SO) - their term for a PRO - to manage the payments and their distribution through a competitive process. After selecting the SO, DEP would review and decide on a detailed plan for the management of payments and oversee the SO's work. DEP would also be responsible for enforcing the law.

DEP would set many of the plan elements through a substantive rulemaking process. The SO would calculate the average cost for municipalities to manage packaging waste and would reimburse municipalities for their recycling and solid waste management programs based on those estimates, cover their and DEP's administrative costs, and invest in education and infrastructure to improve recycling outcomes in Maine. By basing municipal reimbursement on the average cost facing different size municipalities, the program will have built in incentives for efficiency.

Municipalities would continue to be responsible for their recycling and solid waste management programs. Those that choose to participate in the packaging stewardship program and provide the data requested by the SO would be paid by the SO to help offset their costs of recycling and management of packaging.

Massachusetts

In Massachusetts, there were two proposed bills: [HB 745](#) and [HB 750](#), which were introduced in 2019. Both bills define PPP similarly as any material used to ship, hold, protect, and present goods for sale to consumers in the State, including corrugated cardboard, boxboard, and rigid plastic containers. Paper that can or has been printed on, including flyers, brochures, booklets, catalogues, greeting cards, telephone directories, newspapers, magazines, paper used for copying, writing, or any other general use is also included. Packaging covered by the State's bottle bill program would be exempt.

Under both proposed bills, groups of producers of packaging and paper products could form a producer responsibility organization (PRO) to act as their agent. Both bills define "producers" similarly, including exemptions for small producers. The PRO(s) would develop and implement a plan that would be approved by the Massachusetts Department of Environmental Protection (MassDEP). The PRO(s) would be required to identify and quantify packaging and paper types for which each PRO member is responsible and assess appropriate fees on its members based on cost, recovery, and environmental criteria. The PRO would arrange and finance the collection and recycling of covered materials utilizing and expanding existing infrastructure and run public education programs.

Under both proposals, Massachusetts DEP would select the PRO(s) to manage the payments and their distribution through a competitive process. After selecting the PRO(s), DEP would review and decide on a detailed plan for the management of payments and oversee their work. Producers or PRO(s) would be required to develop and submit a program plan to MassDEP four months after the promulgation of DEP regulations. The plan would cover the producers, the types of packaging managed by the PRO, how the PRO will achieve waste reduction and recovery goals,

how the PRO will calculate the amount of packaging sold in the State, the financing structure to cover the cost of operating a collection and recycling system, the public education and outreach program; and how the producers or PRO will work with existing haulers, MRFs, and municipalities to operate or expand the collection programs so that they are convenient to residents, businesses, and institutions. Massachusetts DEP would have authority to review and approve or not the proposed plan and would have authority to enforce the law.

Both proposals would also create a Sustainable Packaging Advisory Board to advise the MassDEP, the producers, and PRO(s) on the program. The PRO(s) would be required to submit an annual report to the Sustainable Packaging Advisory Board and MassDEP detailing the amount of material sold in the State, a summary of the fees that were assessed, program expenses, and any other information required by MassDEP.

The PRO(s) would reimburse municipalities for their recycling and solid waste management programs, cover their and DEP's administrative costs, and invest in education and infrastructure to improve recycling outcomes in Massachusetts. The PRO(s) would be required to establish and maintain a Sustainable Packaging Trust to pay for the costs of developing, implementing, and operating the municipal reimbursements, including reasonable costs associated with the operation of the PRO(s), a share of costs incurred by the Sustainable Packaging Advisory Board in carrying out its responsibilities, and to pay a share of costs incurred by MassDEP to carry out its responsibilities. Municipalities would continue to be responsible for their recycling and solid waste management programs but would receive payments from the PRO(s) to cover the costs.

The Table in [Appendix B](#) summarizes the two Massachusetts proposals.

New York

In New York State, there are two proposed bills: [A09790](#) and [S07718](#), which were introduced early in 2020. The scope of the products covered under the bills differ with the Assembly bill (A09790) covering only packaging and the Senate bill (S07718) covering both packaging and paper products. [Appendix B](#), part 2 describes the scope of the products covered under the proposals.

Under both proposed bills, groups of producers of packaging could form a PRO to act as their agent or they can act on their own. The bills define producers similarly and both include exemptions for small producers. Producers or their PRO would submit a plan to the New York State Department of Environmental Conservation (NYSDEC) that details how they propose to implement the program in compliance with the law.

Under both proposals, producers or approved PRO(s) would be required to develop and submit a program plan to NYSDEC after the promulgation of DEC regulations. The plan would cover the producers, the types of packaging (and paper products under the Senate law) managed by the PRO, how the PRO will achieve waste reduction and recovery goals, how the PRO will calculate the amount of packaging sold in the State, the financing structure to cover the cost of operating a collection and recycling system, the public education and outreach program, and how the producers or PRO will work with existing haulers, MRFs, and municipalities to operate or expand the collection programs so that they are convenient to residents, businesses, and institutions. NYSDEC would have authority to review and approve or not the proposed plan and would have authority to enforce the law. Both laws spell out convenience standards for the

collection of the covered materials that must be met by the PRO and producers. Both proposals require that the PRO(s) or producers describe how they plan to implement the EPR program under the existing municipal collection infrastructure in the plans they submit to the NYSDEC.

A major difference between the two proposed laws are the design incentives as shown in [Appendix B](#). Under the Assembly proposal, the PRO or producer plan must describe the extent to which the program will achieve source reduction of the producer's packaging, including but not limited to, reducing the amount of material used, and how they will be designed for reuse.

Under the Senate proposal, the PRO or producer must structure the program charges to provide producers with financial incentives to reward waste reduction and recycling compatibility innovations and practices and to discourage designs or practices that increase costs of managing the products. The charges can be adjusted based upon the percentage of post-consumer recycled material content and such percentage of post-consumer recycled content must be verified either by the PRO or by an independent party.

Canada

In Canada, the Provinces of British Columbia, Manitoba, Ontario, Quebec, and Saskatchewan have established EPR for packaging and paper product programs. In October 2019, the government of the [Province of New Brunswick](#) announced that it, too, would be developing an EPR program for PPP.

Among the Canadian Provinces, there are a wide range of models that have emerged. Different Provincial programs cover different materials and generators. The following sections explore the programs in British Columbia Quebec as examples.

British Columbia

In 2011, the government of [British Columbia](#) (BC) amended its Recycling Regulations to make businesses supplying packaging and printed paper responsible for collecting and recycling their products. Now British Columbia has one of the most comprehensive EPR programs for PPP in North America. This was done to shift recycling costs from BC taxpayers to producers, and to give producers more incentives to be environmentally friendly by producing less packaging and waste.

In May 2014, Multi-Material BC (MMBC) – the PRO supporting the program - received approval from the Environment Ministry of its stewardship plan for the collection and recycling of packaging and printed paper in BC. The list of materials handled by the program is exhaustive, including more than 30 types of packaging. See [Appendix A](#) below for details.

In April 2017, MMBC became [Recycle BC](#), a non-profit third-party organization (formed and managed by the companies that are subject to the regulations). RecycleBC is funded by more than 1,200 businesses, including retailers, restaurants, and manufacturers that sell packaging to residents in British Columbia. These businesses fund Recycle BC and its activities. This PRO is responsible for [providing services involved with collection, processing and marketing of materials](#). In many areas, local governments have continued to provide curbside collection services for single family residents and multi-family housing, and the PRO reimburses those communities for their costs. These reimbursements are spelled out in commercial agreements that municipalities enter into with Recycle BC. Recycle BC also provides curbside collection

services in some communities that opt for that model. In other communities, Recycle BC provides the services directly by collecting materials from residents through depots that are funded and operated by Recycle BC. In 2018, more than 98 percent of households had access to a depot. The program has achieved a 78 percent recovery rate to date.

Quebec

The [program in Quebec](#) may be undergoing changes in the near future. To date, the collection services in Quebec have been provided through the municipalities, but under a newly proposed plan, some collection services may be operated by private providers in the future, similar to BC.

[Eco Enterprises Quebec](#) (EEQ) is the main PRO for Quebec's program. It was certified by the Government of Quebec in 2005. It represents 3,400 companies that market packaging and printed materials in the Province. The list of covered products includes containers and packaging made of flexible or rigid material, such as paper, cardboard, plastic, glass, or metal, printed matter, paper and other cellulosic fibers, whether or not they are used as a medium for text or images, except books and newspapers, and short-life containers and packaging sold as products and printed matter sold as products.

Companies that produce or import packaging and paper products contribute to the PRO based on a schedule that is developed and published each year. A fee by type of material is established based on recycling performance, collection, treatment, and market value. The less recyclable the material, the more the company pays. The more product generated the more the company pays. EEQ works to improve efficiency and optimize the curbside collection system.

Europe

According to [Europen](#), at least 25 European Union (EU) Member States have implemented EPR in their national packaging waste policies. The EU Packaging and Packaging Waste Directive (PPWD) provides a legislative framework for these policies. With "reduction of the environmental impact of packaging" as one of its two objectives, the PPWD has been a driver of the steady increase in packaging recycling and recovery rates since its adoption in 1994. By 2014, the participating EU countries had achieved a 65 percent recycling rate for packaging and a 78.5 percent overall recovery rate, as compared to a recycling rate of 45 percent in 1998 for a subset of the countries. However, national differences have led to different ways of implementing the PPWD, and there is a wide variation in packaging waste management performance. Unlike the Canadian programs, the EU EPR laws do not include printed paper – just packaging.

In 2014, the European Commission published a proposal to review recycling and other waste-related targets in the EU to encourage the transition towards a Circular Economy. It also aimed to improve the transparency and cost effectiveness of the European EPR systems by defining minimum requirements in the Waste Framework Directive (WFD).

PPWD is an EU harmonization measure, meaning that it establishes common (i.e., harmonized) rules that enable packaging and packaged goods to trade freely throughout the EU. It has twin objectives: to help prevent obstacles to trade and to reduce the environmental impact of packaging. It defines "Essential Requirements" on design that packaging must meet in order to benefit from the EU's free movement guarantee, and it sets targets for the amount of used packaging that must be recycled or otherwise recovered in all EU Member States. The European

Commission proposed the PPWD in the early 1990s because different national environmental measures were causing competitive distortions and obstacles to the free movement of packaging and packaged goods.

[EPR for packaging waste in the EU ensures](#) that the material is collected, sorted, and recycled according to legislated targets. This activity is funded by the material-specific fees paid by producers/importers for the packaging that they place on the national market. These fees are charged based on the weight of packaging the producer puts on the market and consequently incentivizes material optimization. Fees per ton of packaging material placed on the market vary from country to country because the obligations and responsibilities differ, among other reasons. The fees paid by producers to EPR systems typically cover all or a significant share of the costs of separate collection/sorting of used packaging and consumer awareness activities.

In some EU Member States, the fees paid for EPR systems are used to pay private or public waste management companies, who collect and sort post-consumer packaging waste (e.g., Spain and the Czech Republic). In other countries, these fees are paid to local authorities who collect packaging waste separately or appoint contractors to do so on their behalf (e.g., Austria, Belgium, and Sweden). Collected and sorted used packaging is then sold to recyclers or, sometimes, to energy recovery operators. Typically, the revenues offset the financial contributions of producers and importers to the EPR systems. However, some countries' EPR schemes have a different operational design from the model described above (e.g., the United Kingdom and Poland).

In some EU Members, responsibility for organizing and/or financing the collection and sorting of used packaging from households has shifted partially or fully from municipalities to industry. At times, when the value of secondary materials derived from packaging waste has risen, municipalities and/or waste management companies have been seeking ownership of the collected material while demanding that producers take increasingly more financial responsibility, with less operational control on cost and performance; resulting in new and competing EPR schemes.

As noted above the European Parliament has approved an updated Circular Economy Action Plan. The new ambitious recycling and landfilling targets were designed to boost the re-use of valuable material from waste and improve the way municipal and packaging waste is managed, thus making the circular economy a reality. It further strengthens the "waste management hierarchy" by placing prevention, re-use, and recycling clearly above landfilling and incineration. New recycling targets for all packaging waste are 65 percent by 2025 and 70 percent by 2030. Producers are given an important role in the transition to achieving these targets through the EPR systems. The European Parliament requires a mandatory EPR scheme to be established for all packaging in all member countries by 2025.

Key Issues to Consider When Developing an EPR for PPP Program

[Definition of Packaging & Paper Products](#)

There are many ways in which packaging and paper products that are managed through EPR programs can be defined. This includes articulating both the function of the material, the type of product or packaging, and/or the user of the packaging or product. The following is a list of some of the materials included in the existing EPR for PPP programs in Canada:

- Newspaper
- Newsprint circulars
- Magazines, catalogues, and directories
- General use paper
- Posters, cards, and envelopes
- Other printed materials
- Paper board and corrugated cardboard
- Glass bottles and jars
- Aluminum and steel cans and lids
- Plastic bottles and containers
- Flexible packaging

As noted above and in [Appendix A](#), British Columbia has an exhaustive list of products covered by the law, but it only applies to residents; excluding businesses, schools, and government. This is the more common approach to EPR for PPP, but there are some examples that include all generators of packaging and paper products.

The definition of packaging in the Maine DEP proposal is a functional one. It states that “packaging” means a material used for containment, protection, handling, delivery, and presentation of products that may leave a point of sale with the product’s ultimate consumer. It excludes packaging that can be expected to last at least five years and is used for long-term protection or storage of a product.

Financing Systems

As part of any EPR for PPP plan, there needs to be a clearly defined manufacturer financing system. The proposals in the U.S. states and the Canadian systems require that a Producer Responsibility Organization (PRO) (or the stewardship organization as it is called in the ME DEP proposal), and manufacturers where there is no PRO, set their fees to cover the costs of collecting, processing, and marketing the materials, education and outreach, certain costs borne by the government oversight agency, and a reserve that is sufficient to cover any cost increases or unexpected expenditures. Under the PRO plan envisioned in the Maine, Massachusetts, and New York proposals, the PRO(s) would establish a methodology for setting the fees and demonstrate how the revenues would cover the mandated costs.

The Maine proposal outlines how much producers pay. Producers would pay the average per ton management cost for each ton of recyclable material that they fail to collect through a producer plan. Non-recyclable material would cost at least twice that much. DEP would establish the fees through a rulemaking process. PROs would pay for what they produce. That money would be used for municipal reimbursement and administration. The left-over funds would go to education and infrastructure development. The PRO would not show how revenues cover mandated costs. The revenues would be mandated. PROs would have lower costs when they manage less recycling, as is the case with a system that mandates costs. As programs have evolved, they are developing modulated fee systems with built in incentives as described above for the program proposal in Maine.

Unlike some other EPR systems – such as for paint and mattresses, the models for covering PPP do not envision a visible fee to the consumer. Rather the expectation is that the cost to pay the fees borne by the manufacturers or brands will be integrated into the cost of the product.

Role of Existing Infrastructure for Collecting Recyclables & Trash

A key difference among some of the PPP EPR proposals in North America surrounds the role of the existing collection and processing infrastructure. In the proposals for Massachusetts, there is a mandate that the PRO(s) contract with municipalities to reimburse them for the costs of collection and hauling and recycling, with those activities continuing to be managed and overseen by municipal authorities. In the proposed ME legislation, municipalities can opt-out of the program, and the SO could manage their recyclables in that case, but there would be no requirement that the SO manage their recyclables. In Maine, the SO would never take control of material. They would pay the average municipal costs for the management of material they sell/distribute: the net of collection, hauling, processing, and sale. Programs, such as in British Columbia, provide opportunities for the PRO and the manufacturer members to conduct collection and hauling directly from residents. In this example, Recycle BC establishes and manages curbside collection as well as depot sites for collecting waste packaging for municipalities that choose either of these options. In these cases, they control the hauling and processing of the materials from those sites. In the areas, where these depots provide those services, the municipalities no longer play a role.

Often the PROs and manufacturers favor models where they are given a high degree of control over the collection infrastructure, since they argue that it gives them greater control over the costs and delivery of services. Some municipalities also favor this model since they would prefer not to have to support collection and hauling of packaging and paper products. Other municipalities, and often haulers and MRFs, disagree and want to maintain control over the waste services offered in their community. They prefer a reimbursement model where they continue to deliver the waste services but benefit from funding by the PRO/manufacturers/SO. They argue that they are able to be more responsive to residents and local conditions and have experience running their systems. Arguments abound about which of the systems are free market versus those that are controlled by a group of the companies.

Governance of the PRO

EPR for PPP stakeholders also debate the makeup of the governance of the PROs/SOs. These questions center on whether these non-profit organizations' governing bodies (i.e., Board of Directors or Trustees) should exclusively or nearly exclusively include representatives of the member companies or should include municipal, non-governmental, or other representatives as well.

The debates concerning the governance structure of the PROs also focus on how transparent the organization is or should be, particularly in terms of its cost structure, financial reserves, the use of those reserves, and performance metrics.

Administrative System & Government Oversight

Most EPR laws in the U.S. and Canada give authority to the state or provincial government agencies that implement environmental mandates to enforce and monitor the programs. This includes reviewing and approving the initial PRO plans and regular plan updates, receiving annual reports on progress, annually reporting to the legislature or other government bodies about the programs, and suggesting any changes for improvements. Costs incurred by the government entity are usually covered by the PRO up to a certain negotiated dollar amount per

year. Usually the government entities and the PRO provide guidance to municipalities on program implementation and their responsibilities. Both entities can be engaged in outreach and education efforts once the program is up and running to help residents, businesses, and institutions (depending on the types of generators covered by the program) understand how the program works and the available services.

Incentives for Recyclability & Increased Use of Secondary Feedstock

An important expectation of EPR laws is that they will incentivize product design changes to increase recyclability and possibly increase the use of recycled content. To address this goal more directly, there is a developing trend to introduce tiered fees into EPR for PPP. For example, France has adopted variable product fees to brand owners that charge higher fees for products with low recyclability, and lower fees for high recyclability and a threshold amount of recycled content. The Netherlands implemented a similar law in 2019, which charges lower fees for plastic products that can be sorted and recycled, as well as having a positive end-market value.

These program changes are relatively new and as such, the impacts are not yet certain. Maine's proposed law incorporates a tiered fee system that, if adopted, will be the first such model in the U.S. The legislative proposals in New York differ significantly in how they would incentivize source reduction and recyclability of the packaging and paper products. Most current laws have different costs for different materials; these costs generally reflect processing cost and value, which can be an effective proxy for recyclability.

Education & Labeling

Education of residents and packaging and paper product generators (if they are covered) about what is covered by the program, and where to take it for recycling is key to the success of any program. There are different approaches to education and outreach in the various EPR programs around the world. Essential to any education program is product labeling. Increasingly, the European programs are focusing on clarifying and improving the labeling of products and packaging to help consumers better understand what is and what is not recyclable.

Under the proposed legislation in Maine, optional producer collection programs must include effective education and outreach strategies for reaching consumers in all areas of the State. Education and outreach funds would be available to the SO as part of the pool of investment money, which and can be spent on education and outreach projects subject to ME DEP approval. Exactly what would be required by the SO for education, is not defined. Under the bills proposed in Massachusetts, the responsibility for education would be shared among the PRO, producers, state, and municipalities. Under the New York proposals, the PRO would have responsibility for undertaking education programs to support the implementation of the law.

Performance Metrics

EPR for PPP laws usually spell out a set of performance metrics or targets that the PRO/manufacturers/SO must address in their annual reports to the state agencies. For example, in the case of the ME DEP proposal, the producer collection plans would need to report this. The SO would have to report on the tonnage collected, reused, recycled, incinerated for waste to energy, and disposed; the tonnage managed by material type that is attributed to each producer; and a list of collection opportunities and outreach expenditures. The performance metrics in the

Massachusetts proposal include the amount of material sold in the State, a summary of assessed fees, and program expenditures, and anyone other information that MassDEP requires.

References & Resources

- British Columbia - <https://www.rcbc.ca/recycling-programs/epr>
- British Columbia: Recycle British Columbia's Extended Producer Responsibility for Packaging and Paper: An Assessment of Its Impact - http://www.crrcnorth.org/uploads/pdf/Recycle_BC_White_Paper_2-19.pdf
- Canada - https://www.ccme.ca/files/Resources/waste/extended/Giroux%20Environmental_Key%20Elements%20EPR%20Prdct%20StwrdsHP%20Prgrms%201.0.pdf
- European - <https://europen-packaging.eu/circular-economy/eudocuments/26-factsheet-on-extended-producer-responsibility-epr-for-used-packaging.html>
- U.S. EPA - https://www.epa.gov/sites/production/files/2019-11/documents/2017_facts_and_figures_fact_sheet_final.pdf
- Europe - https://www.greenerpackage.com/recycling/europen_state_packaging_policy_europe
- NERC webinars - <https://nerc.org/documents/Webinars/Canadian%20Packaging%20EPR/Dave%20Lefebvre%20Presentation.pdf>
- Beer Packaging in British Columbia - <https://envirobeerbc.com/>
- EPR in New Brunswick - <https://resource-recycling.com/recycling/2019/11/05/packaging-epr-on-the-way-in-another-canadian-province/>
- European Parliament - <https://www.europarl.europa.eu/news/en/press-room/20180227IPR98710/circular-economy-meps-back-plans-to-boost-recycling-and-cut-landfilling>
- European Union - <https://circulareconomy.europa.eu/platform/en/good-practices/innovative-bonus-malus-system-increased-rates-recyclability-packaging-industry-france>
- European Union Circular Economy Package - https://www.gs1.org/sites/default/files/eu_circular_economy_package.pdf; https://ec.europa.eu/commission/presscorner/detail/en/MEMO_19_1481
- Landfill tip fees - https://erefdn.org/wp-content/uploads/2017/12/MSWLF-Tipping-Fees-2018-Rev.ed_.2019.pdf
- Maine - https://legislature.maine.gov/legis/bills/bills_129th/billtexts/HP104101.asp; <http://legislature.maine.gov/legis/bills/getPDF.asp?paper=HP1500&item=1&snum=129>
- Massachusetts - <https://malegislature.gov/Bills/191/HD1042>; <https://malegislature.gov/Bills/191/H750>
- NERC - <https://nerc.org/documents/Summary%20of%20Announced%20Increased%20Capacity%20to%20Use%20Recycled%20Paper%20%E2%80%93%20Updated%20November%202019.pdf>
- NEWMOA/NERC paper - http://www.newmoa.org/publications/Recycling_Briefing_Paper_NECOIE_2018.pdf
- New York - <https://nyassembly.gov/leg/?bn=A09790&term=2019>; <https://nyassembly.gov/leg/?bn=S07718&term=2019>

- Produce Stewardship Institute (PSI) - https://cdn.ymaws.com/www.productstewardship.us/resource/resmgr/imported/Financial_Benefits_Fact_Sheet_5_06_10.pdf
- PSI Toolkit on EPR for PPP - https://cdn.ymaws.com/www.productstewardship.us/resource/resmgr/packaging_toolkit/psi_packaging_epr_elements_s.pdf
- PSI Report - https://cdn.ymaws.com/www.productstewardship.us/resource/resmgr/packaging/2020.03.17_PSI_EPR_for_PPP.pdf
- Quebec - <https://www.recyc-quebec.gouv.qc.ca/>
- Sustainable Packaging Coalition - <https://sustainablepackaging.org/goals/>
- U.S. legislative proposal - <https://www.tomudall.senate.gov/imo/media/doc/Press%20Packet.pdf>

Acknowledgments & Disclaimer

About NEWMOA

The Northeast Waste Management Officials' Association (NEWMOA) is a non-profit, non-partisan, interstate association whose membership is composed of the state environment agency programs that address pollution prevention, toxics use reduction, sustainability, materials management, hazardous waste, solid waste, emergency response, waste site cleanup, underground storage tanks, and related environmental challenges in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. NEWMOA' mission is to provide a strategic forum for effectively solving environmental problems through collaborative regional initiatives that:

- Advance pollution prevention and sustainability
- Promote safer alternatives to toxic materials in products
- Identify and assess emerging contaminants
- Facilitate adaption to climate change and mitigate greenhouse gas sources
- Promote reuse and recycling of wastes and diversion of organics
- Support proper management of hazardous and solid wastes
- Facilitate clean-up of contaminant releases to the environment

For more information, visit www.newmoa.org.

About NERC

The Northeast Recycling Council (NERC) is a multi-state non-profit organization whose programs emphasize source reduction, reuse, recycling, composting, environmentally preferable purchasing (EPP), and decreasing the toxicity of the solid waste stream in the 11-state region comprised of Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Maryland, Pennsylvania, Rhode Island, and Vermont. Its mission is to minimize waste, conserve natural resources, and advance a sustainable economy through facilitated collaboration and action. For more information, visit <https://nerc.org/>.

Contributors/Acknowledgements

Terri Goldberg, NEWMOA Executive Director and Lynn Rubinstein, NERC Executive Director prepared this paper. NERC and NEWMOA gratefully acknowledge the contributions of Tom Metzner, CT DEEP; Elena Bertocci and Megan Pryor, ME DEP; Brooke Nash, Mass DEP; Peter Pettit, NYS DEC; Andrew Radin, OCRRA; Cathy Jamieson and Josh Kelly, VT DEC; Claire Galkowski, South Shore Recycling Cooperative; John Hite, Conservation Law Foundation; and Victor Bell, Lorax EPI Compliance Ltd. to this effort.

Disclaimer

The information contained in this paper is intended for general information purposes. NERC and NEWMOA have sought to ensure the accuracy of this information but make no guarantees, implied or expressed. The views expressed in this paper do not necessarily reflect the views of NEWMOA and NERC members. Mention of any company, process, or product name should not be considered an endorsement by NERC, NEWMOA, or their members.

Appendix A

RecycleBC – Accepted Materials List (Residents Only)

Paper	Metal	Plastic
Newspapers & flyers	Aerosol cans (empty)	Jugs with screw tops
Magazines & catalogues	Spiral wound cans & metal lids	Clamshells
Telephone books	Steel cans & lids	Jars and lids
Writing paper & paper correspondence	Aluminum cans & lids	Bottles & caps
Corrugated cardboard boxes	Aluminum foil & foil take-out containers	Trays & tops
Cardboard/boxboard		Tubs & lids
Molded boxboard (such as egg cartons)	Glass	Cold drink cups with lids
Paper bags	Non-deposit bottles & jars	Garden pots & trays
Paper cups		Pails
Gable topped cartons		Microwaveable bowls & cups
Aseptic boxes & cartons		Bags & overwrap
Frozen dessert boxes		Foam food containers & trays
		Foam cushion packaging
		Flexible stand-up & zipper lock packaging
		Flexible packaging with plastic seal
		Crinkly wrappers & bags
		Woven & net plastic bags
		Non-food protective packaging

Appendix B: Summary of State EPR for Packaging & Paper Products Legislative Proposals

As of February 2020

Part 1 – Maine & Massachusetts

Caveat: The proposed legislation in Maine, Massachusetts, and New York is undergoing significant discussion and debate and will likely change during the legislative process. These tables provide a snapshot in time. Nevertheless, this presentation demonstrates some of the policy similarities and differences among the current proposals under consideration. For more details on the current versions of the bills, please consult with each state’s legislative website. The New York and the Product Stewardship Institute model proposals follow in Part 2.

Element of the Program	Maine DEP Proposal ⁸	Massachusetts Proposal 1 ⁹	Massachusetts Proposal 2 ¹⁰
Covered Materials	Packaging material means a material used for containment, protection, handling, delivery, & presentation of products that may leave a point of sale with the product’s ultimate consumer. Excludes packaging that can be expected to last at least 5 years & is used for long-term protection or storage of a product.	Any material used to ship, hold, protect, & present goods for sale to consumers in the State, including corrugated cardboard, boxboard, rigid plastic containers, etc. Paper that can or has been printed on, including flyers, brochures, booklets, catalogues, greeting cards, telephone directories, newspapers, magazines, paper used for copying, writing, or any other general use.	Any material used to ship, hold, protect, & present goods for sale to consumers in the State, including but corrugated cardboard, boxboard, rigid plastic containers, etc. Paper that can or has been printed on including flyers, brochures, booklets, catalogues, greeting cards, telephone directories, newspapers, magazines, paper used for copying, writing or any other general use.
Bottle Bill Products Covered	Exemptions for products covered by Maine’s bottle bill.	Beverage containers covered by a mandatory fee or deposit applies, are excluded from the	Any materials on which a mandatory fee or deposit applies, including beverage containers, are excluded.

⁸ <http://legislature.maine.gov/legis/bills/getPDF.asp?paper=HP1500&item=1&snum=129>

⁹ <https://malegislature.gov/Bills/191/H750>

¹⁰ <https://malegislature.gov/Bills/191/H745>

Element of the Program	Maine DEP Proposal ⁸	Massachusetts Proposal 1 ⁹	Massachusetts Proposal 2 ¹⁰
		definition of packaging & printed paper.	
Covered Entities	Households / Municipalities	Households / Municipalities	Households / Municipalities
Producer	<p>For packaging material associated with a single product or products grouped for sale in packaging material labeled with the product's brand name, producer means the person that</p> <ol style="list-style-type: none"> (1) Has legal ownership of the brand (2) Imports where the brand owner has no U.S. presence, or sells a product & elects to fulfill the responsibilities; in cases where a wholesaler, distributor, or retailer adds packaging to a product, the wholesaler, distributor, or retailer is responsible for the packaging it added. <p>Producers distributing packaging in the State must participate in the stewardship program unless they are small producers that demonstrate they:</p>	<p>An entity with more than \$100,000 per year in sales in the State to which one or more of the following apply:</p> <ol style="list-style-type: none"> (1) Which manufactures consumer goods & sells, offers to sell, delivers or distributes in the commonwealth under the manufacturer's own name or brand; (2) Which is the owner or licensee of a trademark or brand under which the material is sold, offered for sale, delivered or distributed in the State, whether or not the trademark is registered; (3) Which imports the consumer goods into the commonwealth for sale or distribution; (4) Which sells containers into which products are dispensed at a retail 	<p>An entity with more than \$100,000 per year in sales in the State to which one or more of the following apply:</p> <ol style="list-style-type: none"> (1) Which manufactures consumer goods & sells, offers to sell, delivers or distributes in the commonwealth under the manufacturer's own name or brand; (2) Which is the owner or licensee of a trademark or brand under which the material is sold, offered for sale, delivered or distributed in the State, whether or not the trademark is registered; (3) Which imports the consumer goods into the commonwealth for sale or distribution; (4) Which sells containers into which products are dispensed at a retail establishment for offsite consumption; or

Element of the Program	Maine DEP Proposal⁸	Massachusetts Proposal 1⁹	Massachusetts Proposal 2¹⁰
	<p>(1) Generate less than \$1,000,000 in gross revenue during the year in question,</p> <p>(2) Distribute less than 1 ton of packaging in Maine during the year in question, or</p> <p>(3) Sell all their products at a single point of retail sale.</p>	<p>establishment for offsite consumption; or</p> <p>(5) Which sells at wholesale or retail a designated material, does not have legal ownership of the brand, & elects to fulfill the responsibilities of the producer for that product.</p> <p>(6) Which does not fall under the definition of small producer</p>	<p>(5) Which sells at wholesale or retail a designated material, does not have legal ownership of the brand, & elects to fulfill the responsibilities of the producer for that product.</p> <p>(6) Which does not fall under the definition of small producer</p>
Producer Responsibility Organization (PRO)	<p>The PRO is called a Stewardship organization (SO) in the proposal. It is the entity chosen by ME DEP & charged with coordinating the payments required by this section & managing investment in education & infrastructure.</p>	<p>PRO is a non-profit organization designated by a group of producers to act as an agent on behalf of participating producers to administrate their responsibility to manage packaging & printed paper. The PRO would develop & submit to the Sustainable Packaging Advisory Board a program plan including the following information:</p> <ul style="list-style-type: none"> • Name of the PRO that the program has been developed in cooperation with. • The designation of persons or classes of persons as stewards 	<p>PRO is an organization designated by a group of producers to act as their agent. It would develop & implement a plan, with advice from an appointed Advisory Board, & approved by DEP. PROs identify & quantify packaging types for which each member is responsible, assess appropriate fees on its members based on cost, recovery & environmental criteria, arrange & finances the collection & recycling of covered materials utilizing & expanding existing infrastructure, & run public education programs. They submit annual reports to DEP</p>

Element of the Program	Maine DEP Proposal ⁸	Massachusetts Proposal 1 ⁹	Massachusetts Proposal 2 ¹⁰
		<p>in respect to packaging production.</p> <ul style="list-style-type: none"> • Fee schedule for collection of stewardship fees from producers of printed paper & packaging • Explain the process for determining how much of each type of packaging, based on weight, is sold into the State each year, & determining the amount of material recycled. • Explain the process for determining the quantity of payments to municipalities. 	<p>detailing amounts of each material sold, recovered & recycled in Mass., detail the methodology to determine those amounts, resulting business development & job creation, & fees collected & expended.</p>
Funding Mechanism	<p>Producers will pay into the packaging stewardship fund for packaging materials distributed in in or into the State & not managed through an approved packaging collection program in accordance with the packaging stewardship organization’s approved plan.</p>	<p>The PRO would establish & maintain a Sustainable Packaging Trust to pay for the costs of developing, implementing, & operating municipal reimbursements, including reasonable costs associated with the operation of the PRO; a reasonable share of costs incurred by the Sustainable Packaging Advisory Board in carrying out its responsibilities; & to pay a</p>	<p>PROs assess fees on members, based on criteria outlined above. A portion of the fees are deposited in the Sustainable Packaging Trust for DEP oversight & enforcement, municipal reimbursements, & Advisory Board expenses. The rest is managed by the PRO, & directly pays for the collection & recovery of covered materials to material recovery facilities, haulers, or other entities that incur costs, for</p>

Element of the Program	Maine DEP Proposal⁸	Massachusetts Proposal 1⁹	Massachusetts Proposal 2¹⁰
		reasonable share of costs incurred by MassDEP to carry out its responsibilities.	expansion of collection infrastructure, & for consumer education. A sufficient balance must be maintained to cover market fluctuations.
Role of Existing Collection System	The SO uses producer payments to reimburse municipal recycling & solid waste management programs... Municipalities will continue to be responsible for their recycling & solid waste management programs. Those that choose to participate in the packaging stewardship program & provide the information required by the stewardship organization, will receive payment from that organization to help offset their costs of recycling & disposing of packaging. Payments for recycling will be based on median costs of similar municipalities while those for disposal will be per capita, thereby providing incentives to increase the efficiency & effectiveness of recycling programs.	The current system will be maintained. Municipal contracts will remain as they see fit, with costs reimbursed by the PRO. Reporting will be done to Department.	PROs will work with existing waste haulers, material recovery facilities, & municipalities to operate or expand current collection programs. (Municipalities only collect about 35-40% of MSW in Mass., the rest is done by commercial sector)

Element of the Program	Maine DEP Proposal⁸	Massachusetts Proposal 1⁹	Massachusetts Proposal 2¹⁰
Performance Standards	The packaging collection program must report annually to the Department & the stewardship organization on: tonnage collected, reused, recycled, incinerated for waste to energy, & disposed; the number of tons managed by material type that should attributed to each producer; & a list of collection opportunities & education & outreach expenditures.	The PRO must submit an annual report to the Sustainable Packaging Advisory Board (see below) covering the amount of material sold in the State, a summary of the fees that were assessed & program expenses, & other information required by MassDEP.	PRO Plans will outline how they will achieve a combined reduction & recovery rate of no less than 65% by weight by the year 2026, & no less than 80% by 2031
Convenience Standards	All municipalities that choose to participate. Municipalities maintain control of collection; the program will cover all municipalities that choose to participate. If producers create their own, additional collection programs, collection & education must be statewide.	PRO would be required to cover costs of any municipality that opts in.	At least as convenient to State residents, businesses, & institutions as they were on the date of enactment. (Expansion of convenience is incentivized by the fee structure.)

Element of the Program	Maine DEP Proposal⁸	Massachusetts Proposal 1⁹	Massachusetts Proposal 2¹⁰
Design Incentives	Packaging stewardship plans should include a schedule of adjustments to a producer's market share to reflect the producer's use of recycling content in packaging, the toxicity of the producer's packaging, & other incentives in line with industry standards. The schedule must incentivize recycled content at multiple levels with benefits of sufficient magnitude to solicit changes. Material types that are not readily recyclable will cost at least 100% more per ton than those designated readily recyclable.	Financing costs would be apportioned using the following criteria: including the position on the Zero Waste Alliance International hierarchy; end of life management costs for each material type; environmental impacts of production, recovery, & disposal, based on a life cycle assessment; & the recovery rate for each material.	Financing costs would be apportioned using transparent cost criteria, including the position on the Zero Waste Alliance International hierarchy; end of life management costs for each material type; environmental impacts of production, recovery, & disposal, based on a life cycle assessment; & the recovery rate for each material.
Market Development for Recycled Materials	The SO will propose investments in education & infrastructure to support packaging recycling in the State in accordance with criteria developed by ME DEP. There would be a designated pot of funds to support such investments which consists of all money required to be paid in by producers that is not needed to reimburse municipalities or cover administrative costs of the PRO &	Incentivized by fee structure. Recyclability, recycled content, toxicity among other metrics will be used to determine fees charged to producers.	Incentivized by fee structure, which provides lower fees for greater recycled content use in covered materials.

Element of the Program	Maine DEP Proposal⁸	Massachusetts Proposal 1⁹	Massachusetts Proposal 2¹⁰
	the Department. Because it is what is left over after paying for recycling, the funding will be large when recycling levels are low & will reduced as recycling levels increase.		
Government Role & Administration	ME DEP will adopt rules to facilitate administration of the program, including those setting relevant fees, the cost of Department oversight of the SO, outlining criteria to be used in approval of investment proposals, & others that are necessary for implementing, administering, & enforcing the program. The Department will also define various key program terms, such as readily-recyclable material types & similar municipalities. DEP will review the SO's annual reports to ensure continued compliance & provide recommendations or correction actions & then follow-up on corrective actions. The Department will promote & enforce a sales prohibition on	State would form a Sustainable Packaging Advisory Board to advise the Mass DEP, the producers, & PRO(s) on the program. Municipalities would report to Mass DEP & the PRO within 12 months of passage a report containing: <ul style="list-style-type: none"> • Monthly tonnage of recycling collected by the municipality, or on behalf of the municipality by a private hauler; • Monthly cost of hauling & tipping fees for recyclables collected; • Monthly costs of operating a municipal transfer station; • Any other information the PRO deems necessary. MassDEP given authority to promulgate rules & regulations as may be necessary, to review	Governor appoints Sustainable Packaging Advisory Board. Board oversees Sustainable Packaging Trust in conjunction with DEP, & reviews & advises on Plans. DEP promulgates rules & regulations to carry out law, approves Plans, administers registration by all covered producers, promulgates & collects registration fees, hires independent auditor to verify PRO annual reports, & assesses fines for noncompliance. DEP Commissioner has authority to expend Trust funds for Department expenses, including at least 5 FTE staff, disbursement of funds to local authorities, audits, & enforcement actions.

Element of the Program	Maine DEP Proposal ⁸	Massachusetts Proposal 1 ⁹	Massachusetts Proposal 2 ¹⁰
	products of non-participating producers.	& approve or not the proposed PRO plan & to enforce the law.	
Education	Optional producer collection programs must include effective education & outreach strategies for reaching consumers in all areas of the State. Education & outreach funds are available to the SO as part of that pot of investment money & can be spent on education & outreach projects subject to Department approval. There are no specific education requirements for the SO.	Shared responsibility – PRO, producers, State, & municipalities.	PROs are responsible for education.
Additional		Municipalities would consider their costs related to recycling to include: <ul style="list-style-type: none"> • Hauling costs • Tipping fees paid to an MRF • Costs incurred through operation of a transfer station. Each municipality would be entitled to reimbursement for costs related to recycling: <ul style="list-style-type: none"> • 60% of recycling contamination is about 10% 	

Element of the Program	Maine DEP Proposal ⁸	Massachusetts Proposal 1 ⁹	Massachusetts Proposal 2 ¹⁰
		<p>overall, as decided by the MRF, or</p> <ul style="list-style-type: none"> • 80% if recycling contamination is below 10%, overall, as decided by the MRF <p>(note: these specifications are likely to change)</p> <p>Each municipality must develop & submit a Zero Waste Plan to Mass DEP, outlining how the municipality intends to reduce their waste. The municipality may only be reimbursed from the PRO through the Trust once the Zero Waste Plan is approved by Mass DEP.</p> <p>(note: this requirement may change so that reporting to the Department is sufficient)</p>	

Part 2 – New York & Product Stewardship Institute Model

Caveat: The proposed legislation in New York is undergoing significant discussion and debate and will likely change during the legislative process. This table provides a snapshot in time. For more details on the current versions of the bills, please consult with New York’s legislative website. Nevertheless, this presentation demonstrates some of the policy similarities and differences among the current proposals under consideration.

Element of the Program	New York State Proposal 1 ¹¹	New York State Proposal 2 ¹²	Product Stewardship Institute (PSI) Model ¹³
Covered Materials	<p>Packaging, which means the material used for the containment, protection, handling, delivery, or presentation of good by the producer for the user or consumer, ranging from raw materials to processed goods & which is capable of being removed & discarded when the product is put in use without adverse effect on the quality or performance of the products.</p> <p>Packaging includes, but is not limited to, all of the following:</p> <ul style="list-style-type: none"> • Sales packaging or primary packaging intended to constitute a sales unit to the consumer at point of purchase • Grouped packaging or secondary packaging intended to brand or display the product • Transport packaging or tertiary packaging intended to protect 	<p>Covered materials & products means any part of a package or container, regardless of recyclability or compostability, that includes material that is used for the containment, protection, handling, delivery, & presentation of goods that are sold, offered for sale, or distributed to consumers in the State, including through an internet transaction. Covered materials & products include the following classes of materials:</p> <ul style="list-style-type: none"> • Containers & packaging including all flexible or rigid material, including but not limited to paper, carton, plastic, glass, or metal, & any combination of such materials that: <ul style="list-style-type: none"> ○ Is used to contain, protect, wrap or present products at any stage in the movement of the product from the responsible party to the ultimate user 	<p>Consumer-facing packaging that contains &/or protects goods; service packaging filled that the point of sale; paper sold as a product; & all printed materials (except bound books). Options include cover all packaging-like products, single- use plastic products only, &/or PPP marketed to the industrial, commercial, & institutional sectors.</p>

¹¹ <https://nyassembly.gov/leg/?bn=A09790&term=2019>

¹² <https://nyassembly.gov/leg/?bn=S07718&term=2019>

¹³ https://cdn.ymaws.com/www.productstewardship.us/resource/resmgr/packaging_toolkit/psi_packaging_epr_elements_s.pdf

Element of the Program	New York State Proposal 1 ¹¹	New York State Proposal 2 ¹²	Product Stewardship Institute (PSI) Model ¹³
	<p>the product during transport</p> <ul style="list-style-type: none"> • Disposable food service containers. <p>Packaging does not include:</p> <ul style="list-style-type: none"> • Packaging containing toxic or hazardous products regulated by the federal insecticide, fungicide, & rodenticide act • Plastic packaging containers that are manufactured for use in the shipment of hazardous materials & are prohibited from being manufactured with used material by certain federal packaging material specifications • Packaging containing drugs or medical devices meeting certain federal definitions • Beverage containers subject to title ten of this article • Reusable packaging. 	<p>or consumer, including tertiary packaging used for transportation or distribution directly to a consumer</p> <ul style="list-style-type: none"> ○ Is intended for a single or short-term use & designed to contain, protect or wrap products, including secondary packaging intended for the consumer market ○ Does not include packaging used for the long-term protection or storage of a product or with a life of not less than five years. <ul style="list-style-type: none"> • Paper products include: <ul style="list-style-type: none"> ○ Paper & other cellulosic fibers, whether or not they are used as a medium for text or images, except books & materials in the newspapers class of materials ○ Containers or packaging used to deliver printed matter directly to the ultimate consumer or recipient ○ Paper of any description, including flyers, brochures, booklets, catalogs, telephone directories, newspapers, magazines, paper fiber; & paper used for writing or any other purpose. 	

Element of the Program	New York State Proposal 1 ¹¹	New York State Proposal 2 ¹²	Product Stewardship Institute (PSI) Model ¹³
		<ul style="list-style-type: none"> • Plastics includes any plastic as determined by the Department, including rigid & flexible plastics: <ul style="list-style-type: none"> ○ Polyethylene terephthalate (PET) ○ Polyethylene (PE) ○ Polyvinyl chloride (PVC) ○ Polypropylene (PP) ○ Polystyrene (PS) ○ Poly coated fiber ○ Multi-layered plastics ○ Other (BPA, Compostable Plastics, Polycarbonate & LEXAN) 	
Bottle Bill Products Covered	Exemption for products covered by NY's bottle bill.	Exemption for products covered by NY's bottle bill.	
Covered Entities	Households / Municipalities	Households / Municipalities	Households & publicly-owned places (options can include Institutional, Commercial, & Industrial (ICI) entities).
Producer	<p>A producer means a person who:</p> <ul style="list-style-type: none"> • Has legal ownership of the brand, brand name, or co-brand of a product to which packaging is applied, that is sold in, into, or distributed for use in the State • If the above definition does not apply, a producer is the first importer of a 	<p>Producer means:</p> <ul style="list-style-type: none"> • The person who manufactures the covered material or product under such person's own name or brand & who sells or offers for sale the covered material or product in the State • The person who imports the covered material or product as the owner or 	<p>A "responsible party" is one that makes, licenses, or imports PPP for sale, use, or distribution in the state, or that distributes packaging. Should include</p>

Element of the Program	New York State Proposal 1 ¹¹	New York State Proposal 2 ¹²	Product Stewardship Institute (PSI) Model ¹³
	<p>product into the State, to which packaging has been applied, for sale in, into, or distribution for use in the State</p> <ul style="list-style-type: none"> • If the above definition does not apply, sells at retail a product, to which packaging has been applied, acquired from an importer that is the producer; or elects to assume the responsibility & register in lieu of a producer <p>Producer does not mean a person who generates less than one million dollars in annual revenues or less than one ton of packaging supplied within the State per year.</p> <p>Retailers that are not producers are exempt from the requirements.</p>	<p>licensee of a trademark or brand under which the covered material or product is sold or distributed in the State</p> <ul style="list-style-type: none"> • The person or company that offers for sale, sells, or distributes the covered material or product in the State. <p>A producer does not include a municipality or a local government planning unit.</p> <p>A producer is exempt if they:</p> <ul style="list-style-type: none"> • Generate less than one million dollars in annual revenues • Generate less than one ton of covered materials or products supplied to NYS State residents per year • Operate as a single point of retail sale & is not supplied or operated as part of a franchise • Retailers that are not producers are exempt from the requirements. 	<p>guidelines to exempt entities that fall below specified revenue & weight thresholds.</p>
<p>Producer Responsibility Organization (PRO)</p>	<p>PRO is not defined in the proposal.</p> <p>A producer may satisfy the requirements... by agreeing to participate in a collective packaging program with any other producer or producers. Any such collective packaging program must meet the same requirements as an individual producer.</p>	<p>PRO means a not-for-profit organization designated by a group of producers to act as an agent on behalf of each producer to develop & implement a producer responsibility plan.</p>	<p>Producers can comply individually or via a stewardship organization representing multiple producers.</p>

Element of the Program	New York State Proposal 1¹¹	New York State Proposal 2¹²	Product Stewardship Institute (PSI) Model¹³
	<p>Any collective packaging program must include a list of producers that are participating in such program.</p> <p>No later than July 1st, 2022, a producer, either individually or cooperatively, must submit to the Department for the Department's approval a plan for the establishment of a plastic packaging program.</p> <p>Beginning July 1, 2025, a producer of either individually or cooperatively, submit to the New York State Department of Environmental Conservation (NYSDEC) for the DEC's approval a plan for the establishment of a packaging program & or a plan for the expansion of an existing plastic packaging program to include additional packaging materials.</p>	<p>Producers may comply individually or may form a PRO & discharge their responsibilities to such organization.</p> <p>Within 3 years after the effective date of the law, no producer can sell, offer for sale, or distribute covered materials or products for use in NY unless the producer, or a producer responsibility organization acting as their designated agent, has a PRO plan approved by the Department. Producers may satisfy participation obligations individually or jointly with other producers or through a PRO.</p>	
Funding Mechanism	<p>A producer must be responsible for all costs associated with the implementation of the packaging program & must not impose a fee on consumers for the collection of packaging. A producer must pay costs incurred by the State in the administration & enforcement of the law. Exclusive of fines & penalties, the</p>	<p>A PRO must establish program participation charges for producers through the producer responsibility plan which must be sufficient to cover all program costs. The PRO may adjust charges to be paid by participating producers based on factors that affect system costs.</p> <p>At a minimum, charges must be variable based on:</p>	<p>Producer internalized funding covers all recycling program costs. Additional options include reimbursements to municipalities for the portion of PPP that is not recyclable or not</p>

Element of the Program	New York State Proposal 1¹¹	New York State Proposal 2¹²	Product Stewardship Institute (PSI) Model¹³
	<p>State must only recover its actual cost of administration & enforcement. A producer must also reimburse planning units & municipalities for the cost of required waste characterization studies.</p>	<ul style="list-style-type: none"> • Costs to provide curbside collection or other level of consumer service that is, at minimum, as convenient as curbside collection or as convenient as the previous waste collection schema in the particular jurisdiction • Costs to process a producer's covered materials or products for sale to secondary material markets • Whether the covered material or product would typically be recyclable except that as a consequence of the product's design, the product has the effect of disrupting recycling processes or the product includes labels, inks, & adhesives containing heavy metals or other hazardous waste as defined by the Department in regulations that would contaminate the recycling process • Whether the covered materials or product are nonfood contact containers & other nonfood contact packaging that is specifically designed to be reusable or refillable & has high reuse or refill rate. 	<p>recycled, payments for costs associated with litter & compost contamination, & establishing a fee system that incentivizes good design & material choices.</p>
Role of Existing Collection System	<p>A packaging program must:</p> <ul style="list-style-type: none"> • Achieve the collection of at least 80% of the producer's packaging in each municipality 	<p>The producer responsibility plan must include a description of the process for municipalities to recoup reasonable costs from the PRO for the activity-based costs, including, as applicable, any administrative,</p>	<p>Not specified</p>

Element of the Program	New York State Proposal 1¹¹	New York State Proposal 2¹²	Product Stewardship Institute (PSI) Model¹³
	<ul style="list-style-type: none"> • Provide widespread, convenient, & equitable access to collection opportunities for the producer's packaging in the State, including the collection of packaging from residential premises. <p>Collection options may include:</p> <ul style="list-style-type: none"> • Collection facilities & services provided by the producer • Collection services provided by existing municipal programs, provided that if municipalities agree to participate in the producer's program, the program must provide for payments to municipalities to be determined in a manner that results in the total amount paid to all municipalities under the program being equal to the total net costs incurred by municipalities as a result of the program. 	<p>sorting, collection, transportation, or processing costs, if the PRO uses existing services through a municipality.</p> <p>The plan must also cover how the producers, or the PRO, will work with existing waste haulers, material recovery facilities, recyclers, & municipalities to operate or expand current collection programs to address material collection methods & a description of how a municipality will participate, on a voluntary basis, with collection & how existing municipal waste collection infrastructure will be used.</p>	
Performance Standards	<p>Beginning March 1st, 2024 for the previous calendar year & annually thereafter, a producer that sells, offers for sale, or distributes packaging in the State & is implementing a packaging program must submit a report to the Department on a form prescribed by the Department that includes the following:</p>	<p>Producer or PRO annual reports must include:</p> <ul style="list-style-type: none"> • A detailed description of the methods used to collect, transport, & process covered materials & products, including detailing collection methods made available to consumers & an evaluation of the program's collection convenience 	<p>PPP should be managed in accordance with the state's waste management hierarchy or SMM policy, with recycling & reuse rate targets for specific</p>

Element of the Program	New York State Proposal 1¹¹	New York State Proposal 2¹²	Product Stewardship Institute (PSI) Model¹³
	<ul style="list-style-type: none"> • The amount of packaging collected for disposing, recycling or reuse in the State during the preceding calendar year & the methods used to accept such packaging & the approximate weight & volume of the packaging accepted by each method used to the extent known • Information detailing the costs of collection to the producer • Information detailing the collection methods made available to consumers • A description of the public education & outreach conducted by the producer & samples of any materials, the number of visits to the website & calls to the toll-free telephone number provided by the producer • Any other information as required by the Department. 	<ul style="list-style-type: none"> • The overall weight of covered materials & products collected • The weight & type of covered materials & products collected by the method of disposition • The total cost of implementing the program, as determined by an independent financial audit, • Information regarding the independently audited financial statements detailing all deposits received & refunds paid by the producers covered by the approved plan, & revenues & expenditures for any fees associated with the approved plan that may be charged separately & identified on the consumer receipt of sale • A detailed description of whether the program compensates municipalities, solid waste collection, sorting, & reprocessing companies, & other approved entities for their recycling efforts & other related services provided by the above entities • Samples of all educational materials provided to consumers or other entities; & a detailed list of efforts undertaken & an evaluation of the methods used to disseminate such materials including recommendations, if any, for how the 	<p>materials based on a %age of the amount of a material on the market.</p>

Element of the Program	New York State Proposal 1 ¹¹	New York State Proposal 2 ¹²	Product Stewardship Institute (PSI) Model ¹³
		educational component of the program can be improved.	
Convenience Standards	A packaging program must provide widespread, convenient, & equitable access to collection opportunities for the producer's packaging in the State, including the collection of packaging from residential premises.	<p>A producer or PRO must provide for widespread, convenient, & equitable access to collection opportunities for the covered products identified under the producer or PRO plan.</p> <p>A PRO must ensure services continue for all single & multi-family residential units that a municipality serves..., either directly or through a contract to provide services, & that such services are continued through the plan. A PRO may rely on a range of means to collect various categories of covered materials or products including, but not limited to, curbside collection, depot drop-off, & retailer take-back so long as covered materials & products collection options include curbside or multi-family recycling collection services provided by municipal programs, municipal contracted programs, solid waste collection companies, or other approved entities.</p>	Covered entities should have convenient, free, & on-going access to collection facilities &/or collection services provided by the producers.

Element of the Program	New York State Proposal 1¹¹	New York State Proposal 2¹²	Product Stewardship Institute (PSI) Model¹³
Design Incentives	<p>A plan submitted by the producer to the Department must describe the extent to which the program will achieve the source reduction of the producer's packaging, including but not limited to reducing the amount of material used & designed for reuse.</p> <p>Source reduction means any action which causes a net reduction in the generation of solid waste & includes reducing the use of nonrecyclable materials, replacing disposable materials & products with reusable materials & products, reducing packaging, & increasing the efficiency of the use of materials. Source reduction does not include replacing a recyclable material with a nonrecyclable material or a material that is less likely to be recycled & does not include a shift from a non-plastic material that currently is recyclable to plastic material. Beginning January 1, 2025, only packaging containing at least 25% postconsumer recycled content may be sold, offered for sale, or distributed in the State.</p>	<p>A PRO must structure program charges to provide producers with financial incentives, to reward waste reduction & recycling compatibility innovations & practices & to discourage designs or practices that increase costs of managing the products.</p> <p>The charges can be adjusted based upon the percentage of post-consumer recycled material content & such percentage of post-consumer recycled content must be verified either by the PRO or by an independent party designated by the Department to ensure that such percentage exceeds the minimum requirements in the covered material, as long as the recycled content does not disrupt the potential for future recycling.</p>	<p>Producers should give first consideration to design, including the elimination & reduction of PPP materials. Additional issues relate to eliminating toxic substances, recycled content, & reusability.</p>
Market Development	Not covered	The PRO plan must take into consideration a post-consumer content rate & recycling	Producers use existing infrastructure to the

Element of the Program	New York State Proposal 1 ¹¹	New York State Proposal 2 ¹²	Product Stewardship Institute (PSI) Model ¹³
for Recycled Materials		rate that will create or enhance markets for recycled materials & there is a plan to adjust the minimum rates on an annual basis.	extent it is technologically feasible & economically practical. May require producers to invest a certain %age of funding in R&D & market infrastructure development.
Government Role & Administration	<p>The Department must promulgate all rules & regulations necessary for the implementation... The Department must:</p> <ul style="list-style-type: none"> • Maintain a list of producers who are implementing or participating in a plan • Maintain a list of each such producer's brands & post such lists on the Department's website. <p>The Department must submit a report regarding implementation in the State to the governor & legislature by April 1st, 2024 & every two years thereafter. The report must include, at a minimum, an evaluation of:</p> <ul style="list-style-type: none"> • The packaging stream in the State • Disposal, recycling & reuse rates in the State for packaging 	<p>The Department must make such rules & regulations which may be necessary for a PRO to develop & manage a funding mechanism & activity-based costs. Producers or PROs must submit a plan to the Department for approval no later than one year after the effective date of the law. Such plan will be for five years & reviewed & updated every five years following the approval of the original plan. The Department will have the discretion to require the plan to be reviewed or revised prior to the five-year period.</p> <p>The Department must promulgate a registration fee schedule to cover administrative costs, including a schedule for re-evaluating the fee structure on an annual basis.</p>	The state oversight agency provides program oversight & enforcement.

Element of the Program	New York State Proposal 1 ¹¹	New York State Proposal 2 ¹²	Product Stewardship Institute (PSI) Model ¹³
	<ul style="list-style-type: none"> • A discussion of compliance & enforcement related to the requirements of this title • Recommendations for any changes to this title. 	<p>No later than 6 months after the date the plan is approved, the producer, or PRO, must implement the approved plan. The Department may rescind the approval of an approved plan at any time.</p> <p>The Department must determine the effectiveness of outreach & education efforts to determine whether changes are necessary to improve those outreach & education efforts & develop information that may be used to improve outreach & education efforts.</p> <p>The Department & the attorney general are authorized to enforce the provisions of the law.</p>	

Element of the Program	New York State Proposal 1¹¹	New York State Proposal 2¹²	Product Stewardship Institute (PSI) Model¹³
Education	<p>A packaging program must provide effective education & outreach efforts to inform consumers about the program, including a website & a toll-free telephone number, which should include, at a minimum, information on how consumers may access & use collection services.</p>	<p>The producer, or PRO must provide effective outreach, education, & communications to consumers throughout NYS regarding:</p> <ul style="list-style-type: none"> • Proper end-of-life management of covered products & beverage containers • The location & availability of curbside & drop-off collection opportunities • How to prevent litter of covered products & beverage containers • Recycling & composting instructions that are consistent state-wide, except as necessary to take into account differences among local laws & processing capabilities; easy to understand; & easily accessible. <p>The outreach & education must be designed to achieve the management goals of covered products, including the prevention of contamination of covered products; be coordinated across programs to avoid confusion for consumers; include, at a minimum: consulting on education, outreach, & communications with local governments & other stakeholders; coordinating with & assisting local municipal programs, municipal contracted programs, solid waste collection companies, & other entities providing</p>	<p>Producers must educate consumers on proper end-of-life management for covered materials (CM), must include labels on CM that instruct people on how to recycle the material in the producers' program, & must provide information on the location & availability of curbside & drop-off collection opportunities. Information should be consistent statewide, easy to understand, & easily accessible.</p>

Element of the Program	New York State Proposal 1¹¹	New York State Proposal 2¹²	Product Stewardship Institute (PSI) Model¹³
		<p>services; & developing & providing outreach & education to the diverse ethnic populations in the state; & a plan to work with participating producers to label covered products with information to assist consumers in responsibly managing & recycling covered products.</p>	