Extended Producer Responsibility Commission

DRAFT

Background document for policy recommendation on

Plastics & Packaging

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Last updated:

October 16, 2025

Contents

EXECUTIVE SUMMARY – TO BE DRAFTED

BACKGROUND – The Problem

Americans generate roughly 96 million tons of packaging waste annually—made primarily from plastic, paper, glass, and metal—yet only 39% is currently recycled.[1] When it comes to plastic, that number is as low as 6%.[2]

Although the U.S. has more than 5,800 facilities that recover packaging material waste, 40% of households still do not have recycling services that match the convenience and quality of their trash collection.[3] Even where services are available, differences in accepted materials create confusion for consumers about what can and cannot be recycled.

At the same time, the cost of operating municipal recycling systems has skyrocketed as markets for recycled materials have shifted due to changing international policies. Local governments currently bear significant costs for managing packaging waste, highlighting the pressing need for policies that can alleviate this strain.

Recycling Rate of Plastics and Packaging in Massachusetts

Based on data from the Massachusetts Department of Environmental Protection (MassDEP), residents generate approximately 4.3 million tons of municipal solid waste each year.[4] While Massachusetts-specific figures are not available, containers and packaging have historically made up the largest share of U.S. municipal solid waste, accounting for 28.1% in 2018 and 30% in 2012, according to the EPA.[5]

Massachusetts is a net exporter of waste for disposal, sending more waste out of state for disposal than it imports.[6]

The table below compares the residential recycling rate by commodity in Northeastern states. The highest rate for each commodity category is noted in bold font.

[1] U.S. Environmental Protection Agency, An Assessment of the U.S. Recycling System: Financial Estimates to Modernize Material Recovery Infrastructure, August 2024, from https://www.epa.gov/system/files/documents/2024-12/financial_assessment_of_us_recycling_system_infrastructure.pdf.

[2] Packaging Dive, 9 Stats about US packaging recycling, Jan. 24, 2025, from https://www.packagingdive.com/news/epa-packaging-materials-recycling-infrastructure-data/738151/.

[3] U.S. Environmental Protection Agency, n 1.

[4] Commonwealth of Massachusetts, Department of Environmental Protection, 2021 Solid Waste Data Update, June 2023, from https://www.mass.gov/doc/2021-solid-waste-data-update/download.

[5] U.S. Environmental Protection Agency, Containers and Packaging: Product-Specific Data, accessed Sept. 2025, from https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/containers-and-packaging-product-specific#:~:text=Containers%20and%20packaging%20make%20up,beverages%2C%20medications%20and%20cosmetic%20products.

[6] Commonwealth of Massachusetts, n 4.

Table 4. Residential Recycling Rate by Commodity in the Northeast

Commodity	MA	CT	ME	NH	RI	NH	NY	NJ	PA
Carboard	37%	38%	24%	29%	**41%**	29%	35%	37%	33%
Mixed Paper	28%	28%	18%	21%	**30%**	21%	26%	27%	23%
Aseptic & Gabletop	4%	14%	6%	4%	**16%**	4%	11%	7%	6%
Glass Container	41%	46%	**60%**	20%	31%	20%	57%	28%	21%
Steel Can	23%	23%	15%	17%	**25%**	17%	22%	23%	21%
Aluminum Can	35%	49%	**82%**	19%	27%	19%	61%	25%	23%
PET Bottle	34%	47%	**65%**	18%	26%	18%	59%	24%	21%
Non-Bottle PET	11%	12%	7%	9%	**14%**	9%	10%	10%	7%
HDPE Natural	30%	31%	18%	22%	**33%**	22%	29%	30%	27%
HDPE Colored	27%	27%	16%	20%	**29%**	20%	25%	27%	24%
PP	12%	12%	6%	7%	**13%**	7%	10%	7%	6%
Plastic #3, 4, 6, 7	1%	2%	2%	2%	0.1%	2%	1%	0.4%	1%
Bulky Rigid Plastic	0.4%	1%	1%	0.4%	0%	0.4%	**7%**	0.2%	0.1%

Source: The Recycling Partnership, *State of Recycling* (2024)[7]

Access to Recycling in Massachusetts

A 2024 report from The Recycling Partnership found that Massachusetts' residential recycling rate was 27%, which includes material captured through deposit return systems.[8] In addition, 93% of single-family households in Massachusetts had access to recycling, as did 46% of multifamily households.

According to the MassDEP, households that may not have access to municipal recycling programs include some apartments of a certain size (determined by the municipality); condominiums; public housing; mixed-use parcels; rooming houses; and/or residents living in municipalities without regulations on private haulers to bundle trash and recycling pickup services.[9]

Some Massachusetts towns have 100% subscription "washed hands" programs, meaning the municipality does not offer solid waste service or recycling. Of 36 municipalities with subscription programs in Massachusetts, 16 have private hauler regulations (PHRs) that mandate bundled trash

[7] The Recycling Partnership, State of Recycling: The Present and Future of Residential Recycling in the U.S., 2024, from https://recyclingpartnership.org/wp-content/uploads/dlm_uploads/2024/05/SORR_Methodology-1-1.pdf.

[8] Ibid.

[9] Commonwealth of Massachusetts, Department of Environmental Protection, Implementing Mandatory Recycling and Private Hauler Regulations, accessed August 25, 2025, from https://www.mass.gov/lists/implementing-mandatory-recycling-private-hauler-regulations.

and recycling services. This accounts for 56,101 households. The remaining 20 "washed-hands" municipalities without PHRs represent 13,728 households. Among these municipalities, recycling access is unclear.[10]

Municipal Costs of Recycling in Massachusetts

While Commonwealth municipalities' aggregate annual spending on waste and recycling is not publicly available, a WGBH news piece indicated that the cost per ton of recycling increased from $5 in 2017 to $140 in 2020.[11] The Massachusetts Municipal Association cites recent MassDEP data in determining that there has been an 18% increase in municipal solid waste disposal and recycling processing costs between 2021 and 2024, which is likely a result of more single-stream recycling programs statewide.[12]

PLASTICS AND PACKAGING EPR AS A POSSIBLE SOLUTION

What Is Plastics and Packaging EPR

Extended Producer Responsibility (EPR) for packaging is a policy framework that transfers the financial and operational responsibility for managing packaging waste from taxpayers and local governments to the producers who create and sell packaged products. EPR laws also create an extensive network of holding accountable all those involved in managing consumer products and packaging, including recyclers, local governments, and state oversight agencies. This approach seeks to increase waste reduction, recycling, and composting, and foster sustainable packaging design. By making producers accountable for the full lifecycle of their packaging, EPR incentivizes innovations in material selection, waste reduction, and the creation of more effective recycling systems.[13]

History of Packaging EPR

International

Extended producer responsibility first gained traction in Europe, with packaging as an initial focus.[14] The idea—producers being held responsible for the post-consumer management of their products and packaging—was introduced in 1990 by Swedish professor Thomas Lindhqvist. With mounting concern over landfill capacity and the high environmental and fiscal burdens of

[10] *Ibid.*; additional data from MassDEP Hazardous and Solid Waste staff.

[11] LeMoult, Craig, "The cost of recycling hits budgets in Massachusetts cities and towns, WGBH, March 9, 2020, accessed August 26, 2025, from https://www.wgbh.org/news/local/2020-03-09/the-cost-of-recycling-hits-budgets-in-massachusetts-cities-and-towns.

[12] Massachusetts Municipal Association, testimony, "MMA asks Environment and Natural Resources Committee to support bills to encourage recycling and reduce plastics pollution," May 29, 2025, accessed August 26, 2025, from https://www.mma.org/advocacy/mma-asks-environment-and-natural-resources-committee-to-support-bills-to-encourage-recycling-and-reduce-plastics-pollution/.

[13] Cassel, Scott, "Perspectives on Product Stewardship: Navigating an Extended Producer Responsibility Path to a Circular Economy," 2023, Bernan Press.

[14] Ibid.

packaging waste, German policymakers felt compelled to put theory into practice. The 1991 Packaging Ordinance introduced container deposits, required retailers to accept used packaging, and set recycling targets for producers. EPR policies quickly spread across Europe. By 2021, most EU member states had packaging EPR systems, and a new Packaging and Packaging Waste Regulation will ensure full adoption by August 2026. The United Kingdom, Norway, Switzerland, and other non-EU countries have their own programs.

As European producer responsibility systems were evolving, similar waste management dynamics began to unfold in Canada.[15] British Columbia led the way, becoming the first jurisdiction in North America to implement a full EPR program for packaging and printed paper in 2014. Over its first ten years, Recycle BC collected nearly two million tons of packaging and paper, invested more than $1 billion from producers, achieved higher than 98% plastic recycling rates, expanded access to cover 99% of residents, and ensured that 73% of recycled materials stayed in North America.[16] Today, almost all ten of Canada's provinces have implemented some form of packaging EPR.

In addition to Europe and Canada, packaging EPR is also widely established in Australia, Brazil, Chile, China, Colombia, India, Japan, New Zealand, Peru, the Philippines, Singapore, South Africa, and South Korea.

Packaging EPR Laws in the U.S. Today

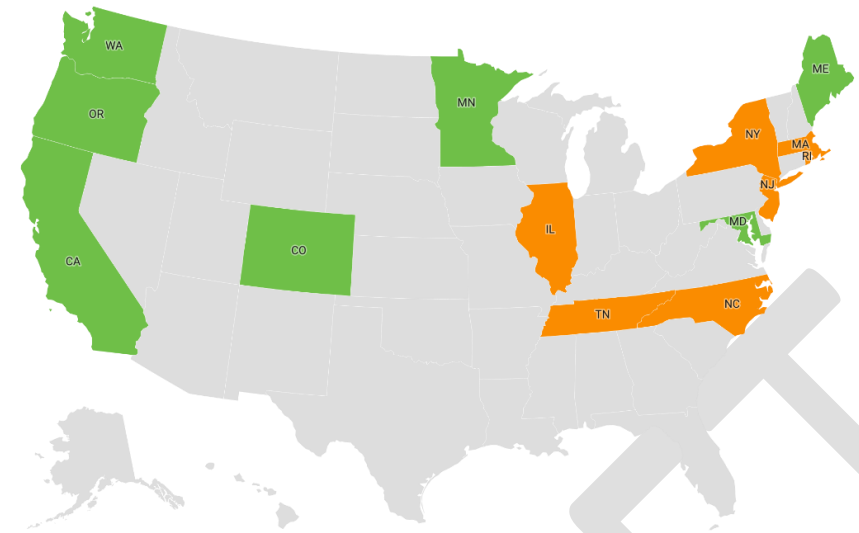
Since 2021, seven U.S. states—Maine, Oregon, Colorado, California, Minnesota, Maryland, and Washington—have enacted EPR legislation directed at packaging. Taking population into account, one in five Americans now live in a state with EPR for packaging.

Maine was the first state to adopt EPR for packaging in July 2021, amended in 2025. Oregon followed in August of 2021, Colorado and California in 2022, Minnesota in 2024, and Maryland and Washington in 2025. Another seven states introduced packaging EPR legislation in 2025. (See Figure 1 below.)

Oregon's program officially began on July 1, 2025. The others are expected to launch between 2026 and 2030. In the meantime, there are several program deadlines that stakeholders will be following, including rulemaking, producer registration and reporting, and submission and approval of program plans.

[15] Product Stewardship Institute, Extended Producer Responsibility for Packaging and Paper Products: Policies, Practices, and Performance, September 2020, from https://productstewardship.us/wp-content/uploads/2022/11/PSI_EPR_for_PPP.pdf.
[16] Recycle BC, Program Overview and Impact, May 2024, from https://recyclebc.ca/wp-content/uploads/2024/05/2024_10YearsofImpactOverview.pdf.

Figure 1. State Packaging EPR Laws and 2025 Bills



This map shows EPR laws and bills that create a new program. Bills amending existing EPR programs are not represented.

Table 1. U.S. Packaging EPR Laws

State	Bill #	Year	Amended	Implementation	Program
Maine	LD 1541	2021	LD 1423 (2025)	2026	Link
Oregon	SB 582	2021	N/A	2025	Link
Colorado	HB 1355	2022	N/A	2026	Link
California	SB 54	2022	N/A	2027	Link
Minnesota	HF 3911	2024	N/A	2029	Link
Maryland	SB 901	2025	N/A	2029	Link
Washington	SB 5284	2025	N/A	2030	Link

How Packaging EPR Laws Work

Each of the seven states with packaging EPR laws have somewhat different approaches. That said, the three most recent laws—Minnesota, Maryland, and Washington—have more in common than the four that came before, such as the industry proposed performance targets and phased funding of the system (see Table 2).

Table 2. U.S. Packaging EPR Laws Comparison

	ME	OR	CO	CA	MN	MD	WA
Packaging covered	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Paper products covered	No	Yes	Yes	No	Yes	Yes	Yes
Food serviceware	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Multiple PRO possible	No	Yes	After 2028	After 2030	After 2031	After 2033	After 2035
Producer funds system	100%	28%	100%	100%	Phased	Phased	Phased
Eco-modulated fees	Regs.	PRO proposes	PRO proposes	PRO proposes	PRO proposes	PRO proposes	PRO proposes
Performance targets	Regs.	Statute	PRO develops	Statute	PRO proposes	PRO proposes	PRO proposes

Covered Materials

All seven states regulate packaging and food serviceware (e.g., cups, lids, straws, utensils). Early EPR states like California and Oregon treated food serviceware as a distinct category separate from packaging. More recently, states have incorporated food serviceware into the definition of packaging. Five states also include paper products, generally defined to include magazines, flyers, brochures, booklets, catalogs, and other printed paper.

With respect to packaging types, all states cover both primary and secondary packaging, while tertiary packaging—used to protect goods during transport—is often excluded except in the context of e-commerce. Each state's program applies to packaging intended for consumer use; business-to-business packaging is generally excluded unless the material is ultimately distributed to end consumers. Compostable packaging is covered under every program, while two states provide exemptions for reusable and refillable packaging.

Other exemptions generally fall into the following categories: small producers; federally regulated products (e.g., medical food, infant formula, drugs, animal medicine, pesticides); and products already managed under an EPR or deposit return system (e.g., architectural paint, beverage containers).

Table 3. Types of Packaging

Packaging Type	Description	Example
Primary Packaging	Sales packaging most closely containing the product.	Plastic sleeve/film on the smartphone screen or the tray that holds the phone inside the box.
Secondary Packaging	Grouped packaging intended to bundle, sell in bulk, brand, or display the product.	Smartphone box with printed branding, technical specs, and contents.
Tertiary Packaging	Transport packaging protecting the product during transport.	E-commerce shipping box, possibly with protective air pillows or paper inside.

Producer Responsibility Organization

The "producer" is typically defined as the brand owner of a product sold in the state, or if that entity is outside the U.S., the importer or first seller. If neither applies, responsibility shifts to the retailer or distributor.

In states with packaging EPR laws, producers generally fulfill their obligations by joining a Producer Responsibility Organization (PRO), a nonprofit entity approved by the state to operate the program on their behalf. The PRO collects fees from participating producers, which are typically based on the weight, material type, and recyclability of packaging, and uses those funds to reimburse municipalities for eligible recycling system costs, contract with service providers, and invest in infrastructure, education, and outreach.

The PRO is responsible for developing a stewardship plan, typically informed by input from an advisory council representing stakeholders across the value chain—waste haulers, local governments, retailers, environmental groups, recycling facilities, and manufacturers of goods from recycled products. This plan must be submitted to the state agency for approval, which also oversees audits and enforces penalties for noncompliance. In addition, the PRO is required to submit annual reports detailing packaging placed on the market, materials collected, and progress toward statutory goals for recycling, reuse, and source reduction. Although producers technically have the option to comply individually, in practice the PRO functions as the primary vehicle for meeting obligations and coordinating program activities. While most states authorize the creation of multiple PROs, they generally designate a single organization to launch the program.

Circular Action Alliance (CAA) has been chosen to implement packaging EPR laws in four states: Oregon, Colorado, California, and Minnesota. CAA was founded in 2022 by companies in the food, beverage, and consumer goods industries to manage EPR compliance across states with these emerging laws.

Collection Convenience

Packaging EPR programs are designed to ensure that all residents have reasonable and equitable access to recycling services for covered packaging. Programs must provide convenient collection options through curbside pickup or drop-off locations that serve both urban and rural areas, with several states emphasizing access for underserved communities. EPR programs also help reduce consumer confusion by requiring a statewide list of items deemed recyclable. These lists identify

which types of packaging materials—such as paper, cardboard, plastics, metals, glass—are eligible for collection and recycling under the program.

Performance Standards

Performance standards are designed to gauge the success and progress of the EPR program and may be established through legislation, rulemaking, or proposed in the PRO stewardship plan. Performance targets for packaging generally focus on waste reduction, recycling rate, and recycled content. For example, California law mandates that by 2032, all single-use packaging and plastic food serviceware must be recyclable or compostable, achieve a 65% recycling rate, and be reduced by 25% compared to 2023 levels.

Colorado's performance targets were informed by a needs assessment conducted by the Circular Action Alliance, which evaluated statewide recycling systems, existing infrastructure, services, and costs, and identified opportunities to help the state achieve its waste diversion goals.[17] Based on this report, the legislature approved the "medium scenario," a recycling system projected to increase paper and packaging recycling rates from 25% to a high-end estimate of 58% by 2035, while expanding curbside recycling at no cost to residents or the state.

POTENTIAL IMPACTS OF PLASTICS AND PACKAGING EPR

RRS, a consulting firm that specializes in waste minimization, conducted a study for the Oregon Recycling Steering Committee in 2020 investigating the impact of EPR packaging programs on recycling rates in Europe and Canada. In every jurisdiction with available data, recycling rates increased after the implementation of an EPR program.[18] In their memo on this topic, RRS does note that comparing data before and after EPR implementation can be difficult due to differences in data sources, quality, and reporting methods, and that it's even harder to compare recycling rates between different jurisdictions. Therefore, the data is most useful for comparing a single jurisdiction's performance over time rather than comparing it to another's.

National Waste & Recycling (NWRA), a private-sector waste and recycling services industry representative, commissioned international environmental consulting firm Eunomia to conduct a study on packaging EPR. In their analysis of the most established packaging EPR programs in the European Union (EU)—Germany, France, and Italy—Eunomia found that recycling rates have increased in all three countries since EPR was introduced. Specifically, Germany's packaging recycling rate increased from 37.7% in 1991 to 76.2% in 2016. They also found that one of the

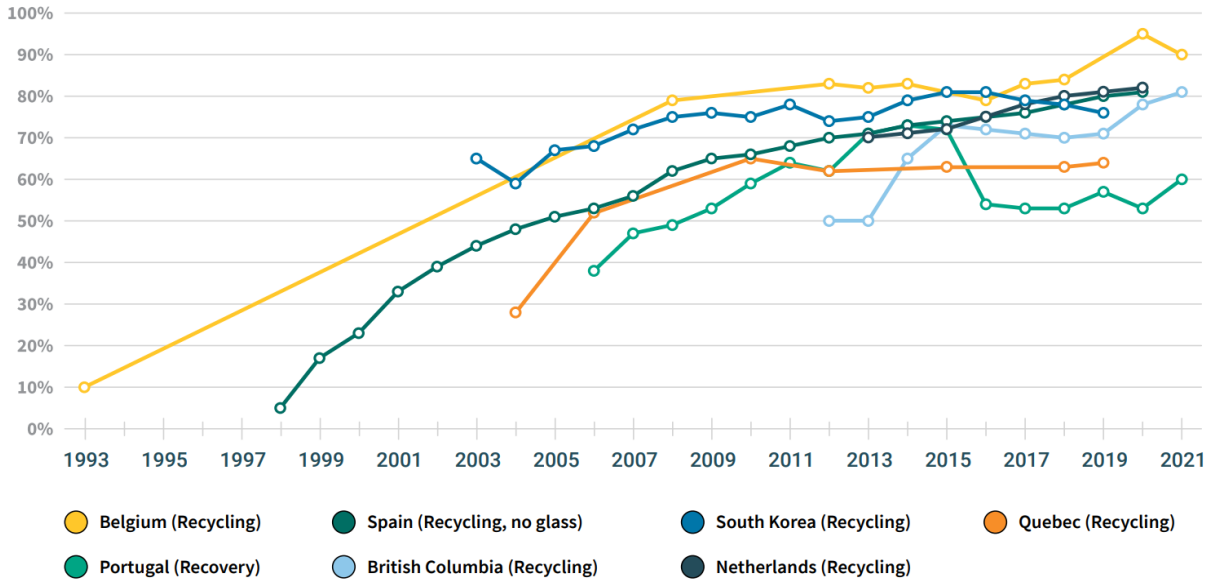
[17] Circular Action Alliance, Colorado Needs Assessment, Jan. 2025, from https://static1.squarespace.com/static/64260ed078c36925b1cf3385/t/6799420fed5d6f0caf9b978f/1743456731209/Needs+Assessment+Full+Report+2025.pdf.

[18] Oregon Department of Environmental Quality, "Recycling Rates in States with EPR," accessed August 26, 2025, from https://www.oregon.gov/deq/recycling/Documents/rscRRSrates.pdf.

drivers for increasing recycling rates in the EU was material-specific targets implemented through the Packaging and Packaging Waste Directive.[19,20]

Most recently, The Recycling Partnership, a national nonprofit funded by numerous consumer brand manufacturers, released a report in 2023 that analyzed seven jurisdictions with EPR packaging programs: British Columbia, Quebec, Belgium, Spain, Portugal, the Netherlands, and South Korea. Five of these seven reached a recycling rate of more than 75% within the last five years (see Figure 4). Belgium is a top performer, with a 95% recycling rate in 2020. In North America, British Columbia leads with an 81% recycling rate in 2021. The outcomes varied based on factors such as program start date, prior systems, and the scope of materials collected, with some programs handling only packaging while others, such as Canada's, also included paper.[21]

Figure 4. — EPR for packaging recycling rates across international jurisdictions.[22]



EPR programs have also significantly improved individual material recycling rates. In Belgium, the plastic recycling rate rose from 38% in 2012 to 52% in 2021. Spain's plastic container recycling rate saw an increase from 17% in 2002 to 75.8% in 2018. In Quebec, a comparatively weaker program,

[19] National Waste & Recycling Association, "Extended Producer Responsibility for Packaging: Elements and Outcomes," (undated), accessed August 26, 2025, from https://wasterecycling.org/wp-content/uploads/2022/03/NWRA-report-v3-Final-Issued-.pdf.

[20] The EU's Packaging and Packaging Waste Directive was enacted on February 11, 2025, and will go into effect in August 2026. The directive aims to prevent and reduce packaging waste, including through more reuse and refill systems; make all packaging on the EU market recyclable in an economically viable way by 2030; safely increase the use of recycled plastics in packaging; and decrease the use of virgin materials in packaging and put the sector on track to climate neutrality by 2050. Accessed August 26, 2025, from https://environment.ec.europa.eu/topics/waste-and-recycling/packaging-waste_en.

[21] The Recycling Partnership, "EPR Policy Report," page 8, accessed August 26, 2025, from https://recyclingpartnership.org/wp-content/uploads/dlm_uploads/2023/02/Recycling-Partnership-EPR-Policy-Report-final.pdf.

[22] *Ibid.*

paper and cardboard recycling rate climbed from 56% to 72% after the implementation of the EPR system.[23]

The Recycling Partnership report also argued that the reason EPR programs raise recycling rates is that they fill four gaps in recycling programs that can cause them to fall short:[24]

1. **Access and participation.** EPR shifts the financial responsibility for recycling from taxpayers to the producers of products. This funding ensures a more robust and equitable recycling system. In regions with EPR programs, including British Columbia, Quebec, Spain, and Belgium, 98–99% of residents have access to recycling services. This is a significant improvement over the U.S., where 40% of households lack equitable access to recycling. EPR-funded programs also see much higher participation rates: in Quebec and British Columbia, 97% and 99% of residents who can recycle do so all or most of the time. This is in stark contrast to the overall U.S. household participation rate of 72%.[25]

2. **Infrastructure.** Under EPR, producers must invest in recycling infrastructure to meet performance standards. This contrasts with traditional recycling programs, which are often hindered by limited budgets, consumer willingness to pay, and unstable markets for recycled materials. By shifting financial responsibility to producers, EPR encourages long-term investment in a more efficient recycling system.[26]

3. **Education.** Funding for recycling education in the U.S. is often limited, relying on municipal efforts, grants, and nonprofits. A 2019 survey found that average spending on education was just $0.95 per household per year, with less than half of communities having dedicated budgets. In contrast, EPR programs provide significantly more funding for recycling education. For example, in 2021, British Columbia's EPR program, RecycleBC, spent $1.54 per household, which is more than five times what Connecticut's RecycleCT spent in 2019 ($0.31 per household).[27]

4. **Market stability.** EPR programs ensure recycling rates remain stable even during market downturns, such as during China's 2018–2020 "National Sword" policy that prohibited recyclables from Western countries from entering the country.[28] While many U.S. recycling programs suffered and even shut down due to low material values, EPR programs continued to improve recycling rates. This is because EPR shifts the financial burden from local

[23] *Ibid.*

[24] This finding is echoed in the RRS memo on impact of EPR on recycling rates.

[25] The Recycling Partnership, "EPR Policy Report," p. 5.

[26] *Ibid.*, p. 6.

[27] *Ibid.*

[28] Upadhyaya, Nidhi, "Recycling is going to waste!" Atlantic Council EnergySource, August 28, 2019, accessed August 26, 2025, from https://www.atlanticcouncil.org/blogs/energysource/recycling-is-going-to-waste/.

governments and private facilities to producers, who are required to meet recycling performance goals regardless of market fluctuations. Essentially, EPR provides a stable funding source that insulates the recycling system from the unpredictable market for recycled materials.

While EPR packaging programs focus on waste reduction, they are also a powerful tool for achieving carbon reduction goals due to their impact on Scope 3 greenhouse gas emissions, which are indirect emissions from a company's value chain.[29]

EPR laws encourage the use of sustainable packaging materials by charging lower fees for them. When companies switch from materials like virgin plastic to recycled content, they directly reduce the carbon emissions associated with production. Improved recycling rates, another impact of EPR programs, also drive measurable emissions reductions.[30]

According to Eunomia's report for the NWRA, France introduced eco-modulation to support design for recyclability and its recycling rate has steadily increased since it was introduced compared to Germany's; however, Italy's rate has increased by more than France's without eco-modulation. Eunomia thus claims that there is no definitive data that shows that EPR results in increased design-for-recycling of packaging.[31]

The data needed for EPR compliance—such as material type and weight—is the same data needed to report on Scope 3 emissions. By collecting this information for EPR, companies can more easily and accurately report on their carbon footprint.[32]

A primary concern raised about EPR packaging programs is the impact on consumers, primarily through an increase in the prices of goods using packaging covered by the program. A study often cited to support these concerns was authored by Calvin Lakhan, Faculty of Environment and Urban Change at York University, originally in 2019, and most recently updated in 2025. "Modeling direct and total economic impacts resulting from the adoption of Extended Producer Responsibility in New York State" aimed to understand the relationship between producer responsibility fees and the impact to the New York State economy.[33] The study modeled a scenario intended to estimate the economic impact of proposed EPR packaging legislation on consumers.

[29] CEMA Systems, "Why EPR is Trending: The Intersection of Circular Economy, Climate Action, and Waste Reduction Mandates," accessed August 26, 2025, from https://www.portal.cemasys.com/post/why-epr-is-trending-the-intersection-of-circular-economy-climate-action-and-waste-reduction-mandates.

[30] *Ibid.*

[31] NWRA report, p. 6.

[32] *Ibid.*

[33] Lakhan, Calvin, "Modeling direct and total economic impacts resulting from the adoption of Extended Producer Responsibility in New York State," accessed August 26, 2025, from https://www.bcnys.org/sites/default/files/2025-03/EPR%20Study%20New%20York%202025%20FINAL%20030425.pdf

Lakhan's study estimates that an EPR packaging program in New York State would place a direct financial burden of about $1.2 billion annually on producers.[34] Lakhan uses the assumption, based on studies conducted by Thomas C. Kinnaman, et al., in 2020, that 80% of these direct costs will be passed onto the consumer.[35] Lakhan details the increase in prices that products with different types of packaging would experience, and estimates the total price impact on a "basket of goods" to range from 4.25% to 6.75%.[36] He identifies the following five impacts on consumers due to this cost increase:

1. **Higher prices for single-use products.** Single-serve and individually packaged products will become more expensive, disproportionately affecting lower-income consumers who often buy smaller sizes.

2. **Packaging reformulation.** To lower costs, producers may switch to cheaper, more recyclable materials, like moving from plastic pouches to paperboard cartons.

3. **Bulk savings.** Larger, bulk-sized products will be a better value, encouraging those who can afford it to buy more at once.

4. **Disparate impacts on products.** Products that heavily use plastic, like dairy and cleaning supplies, will see greater price increases, while those in aluminum cans or cardboard boxes will be less affected.

5. **Inequitable burden.** Low-income households will be disproportionately impacted as they often buy pre-packaged foods that use harder-to-recycle materials.

There are several common criticisms of Lakhan's research, many of which revolve around a lack of citations and references. The Recycling Partnership, in a response to Lakhan's original paper, wrote the following:

> Studies citing consumer surveys, average grocery costs for families, increased consumer price indexes in EPR jurisdictions, assumptions of business practices, and assumptions about the elasticity and pricing of goods lack any supporting references. Key datasets and assumptions used in the New York state EPR for packaging white paper are missing, making it impossible to check the calculations from the study.[37]

[34] *Ibid.*

[35] Unable to find the study referenced in Lakhan's paper.

[36] Lakhan, "Modeling direct and total economic impacts," 18. It is not clear how this range is calculated.

[37] The Recycling Partnership, "Extended Producer Responsibility: Responding to Claims About the Impact on Consumer Price," p. 2, accessed August 26, 2025, from https://drive.google.com/file/d/1GcfT3I4NOAwzpFbjaM2c-Bt3ONOvYlC_/view.

The Recycling Partnership also claims the paper uses "a mixture of proxy and out-of-date data" for calculations on producer costs and fails to take positive economic impacts into account in the input-output analysis.[38]

Other organizations have conducted studies on packaging EPR's impact to consumers, including from RRS in 2020 and Columbia University Professor Satyajit Bose in 2022. RRS conducted a study examining the prices of consumer goods in jurisdictions with and without EPR packaging programs.[39] The team conducted a virtual shopping study, comparing product costs in Canadian provinces with and without these policies. Ultimately, they found no clear link between product prices and the presence of EPR policies.[40]

Satyajit Bose, Professor of Practice and Associate Director of the Sustainability Management Program at Columbia University, conducted a study analyzing the potential impact of a nationwide EPR program on consumer prices, specifically for groceries.[41] He estimated the maximum increase in a typical U.S. household's monthly grocery bill would be about $4, or roughly 0.69% of their total monthly grocery spending. This estimate assumes a worst-case scenario where EPR costs double a product's packaging cost. Given that a typical household's grocery bill can fluctuate by much more than this due to inflation, Bose notes that this change would be difficult to notice.

Small businesses

One concern about EPR packaging legislation is the impact on small businesses for whom compliance may be a burden. Each piece of EPR packaging legislation passed in the U.S. so far addresses this concern differently. Table 4 summarizes exemptions granted to small businesses.

[38] *Ibid.*

[39] Oregon Department of Environmental Quality, "Recycling Rates in States with EPR."

[40] *Ibid.*

[41] Bose, Satyajit, "Economic impacts to consumers from extended producer responsibility (EPR) regulation in the consumer packaged goods sector," July 21, 2022, accessed August 26, 2025, from https://academiccommons.columbia.edu/doi/10.7916/n2af-vv87.

Table 4. — U.S. EPR packaging laws' small-business exclusion thresholds

State	Revenue threshold	Weight of covered material sold into state	Notes
Maine[42]	$5 million gross revenue	1 ton	Threshold decreases to $2 million after three years
Oregon[43]	$5 million gross revenue	1 metric ton	Metric ton = 2,204 lbs
Colorado[44]	$5 million gross revenue	1 ton	
California[45]	$1 million sales into state	n/a	Currently no exemption for small producers regarding 2032 law for all packaging to be recyclable or compostable
Minnesota[46]	$2 million global revenue	1 ton	
Maryland[47]	$2 million global revenue	1 ton	
Washington[48]	$5 million global revenue $5 million in state for agriculture	1 ton	Threshold will be adjusted for inflation beginning in 2031

[42] 38 Me. Rev. Stat. Ann. §2146(2).

[43] 36A Or. Rev. Stat. § 459A.863(32); § 459A.872.

[44] Colo. Rev. Stat. § 25-17-713.

[45] Cal. Pub. Res. Code § 42060(a)(5); Cal. Code Regs. tit. 14, § 18980.5.2 (proposed July 2025), https://www2.calrecycle.ca.gov/Docs/Web/130779.

[46] Minn. Stat. § 115A.1441, subd. 13, 26(b)

[47] Md. Code, Env't § 9–2501(j) & (p)(2), https://mgaleg.maryland.gov/2025RS/bills/sb/sb0901E.pdf.

[48] Rev. Code Wash. § 70A.102(16), (29)(b), https://lawfilesext.leg.wa.gov/biennium/2025-26/Pdf/Bills/Session%20Laws/Senate/5284-S2.sl.pdf.

Haulers and recyclers

The changes EPR for packaging would make to the waste system would impact waste haulers and recyclers as well. An article published in 2020 by Resource Recycling highlights some of the conflicting opinions from waste haulers and recyclers.[49] Their concerns largely revolve around a potential loss of control over local decision-making. Many waste haulers work to develop personal relationships with customers to understand their specific needs, which could be disrupted in a system that relies on a PRO to manage the entire process. There are also benefits to this legislation for these entities. EPR could improve equity and access to collection services, benefiting rural recycling systems and providing financial support for the long-distance transportation to end-markets often required in rural areas. EPR could also increase contamination-reduction efforts, increase quality and reduce sorting costs, and would provide a stable flow of financial support into the market.[50]

10 Benefits of Packaging EPR for Massachusetts

Packaging EPR offers Massachusetts a range of economic, environmental, and community benefits, including:

1. **Cost Savings:** Shifting more financial and operational responsibility to producers will provide meaningful financial relief for cities and towns.
2. **Efficiency:** Creates more consistent, convenient, and comprehensive recycling programs across the Commonwealth.
3. **Clarity:** Standardized education and accepted materials reduce confusion over what can and cannot be recycled.
4. **Stability:** Dedicated funding and systemwide coordination reduce the impact of market fluctuations on recycling systems.
5. **Infrastructure Improvements:** Producer funding can modernize recycling systems, expand technology, increase access, and upgrade facilities.
6. **Innovation:** Companies are incentivized to design packaging that is easier to recycle, reuse, or compost.
7. **Environmental Protection:** Reduces litter, plastic pollution, and associated environmental impacts.
8. **Waste Diversion:** Diverting waste by increased reduction, reuse, recycling, and composting reduces the costs and impacts of in-state and out of state disposal.
9. **Climate Progress:** Supports Massachusetts' waste reduction and climate goals.
10. **Economic Development:** Expands markets for recycled and composted materials and creates new job opportunities and economic development in recycling and composting.

[49] Colin Staub, "Recycling operators sound off on packaging EPR," Resource Recycling, December 22, 2020, https://resource-recycling.com/recycling/2020/12/22/recycling-operators-sound-off-on-packaging-epr/.

[50] *Ibid.*

Legislation & Policy Considerations

2025 State Legislation

State lawmakers across the U.S. introduced more than 148 EPR bills in 2025, with packaging remaining one of the primary areas of focus. This year at least 13 states considered 30 bills related to packaging. Four bills were enacted this session, two creating new programs in Maryland (SB 901) and Washington (SB 5284), and two amending existing laws in Maine (LD 1423) and Oregon (SB 992). Seven bills—in Massachusetts, New Jersey, and North Carolina—are pending as of the date of this publication. Fourteen bills—in Hawaii, Illinois, Minnesota, New York, Tennessee, and Washington—will carryover to 2026.

Policy Considerations

Over the past 25 years, through extensive stakeholder engagement, PSI developed 16 essential elements of EPR that serve as a framework for developing legislation, analyzing existing laws, and guiding implementation.[51] These elements apply across product categories, including packaging. Table 6 below contains policy considerations for packaging EPR as they relate to each element.

Table 6. PSI's 16 Elements of Packaging EPR

Element	Description	Policy Considerations
1. Covered Materials	Materials that are subject to the EPR program	Packaging (including food serviceware) and paper products sold or distributed into the state
2. Covered Entities	Stakeholders that may use the EPR program (receive free recycling services)	Single and multi-family residences, and some non-residential locations (schools, public buildings, hospitality, etc.)
3. Collection & Convenience	Minimum level of collection convenience that a program plan must provide to Covered Entities	Free, convenient statewide collection that maintains and expands on current system; recycling "as convenient as trash" and available to covered entities
4. Responsible Party	Defines who is responsible for funding and managing the EPR program	Tiered hierarchy including brand owner, manufacturer/licensee, and first importer into the state
5. Governance	Defines roles for Producer Responsibility Organization (PRO), Advisory Council, and state oversight	One PRO to start; option to add additional PRO after first program cycle; option for independent producer plan; multi-stakeholder advisory council

[51] Product Stewardship Institute, n 15.

Element	Description	Policy Considerations
6. Funding Inputs	How funding enters the EPR system	Producer fees based on material type, weight, and cost to the manage with adjustments made for eco-modulation
7. Funding Allocation	How EPR program funds are spent	Full Responsibility (traditional EPR): 100% net cost of recycling (including collection, transportation, processing, education, agency costs); needs assessment often funded by PRO.
8. Design for Environment	Provisions beyond eco-modulated fees that minimize environmental and health impacts of Covered Materials	PRO fee structure incentivizes environmental design (ex. toxic reduction, source reduction, PCR content, etc.)
9. Performance Standards	Requirements and metrics to gauge the success and progress of the EPR program	Specific performance targets set in program plan and informed by needs assessment
10. Outreach & Education	Provisions to ensure that consumers, retailers, and other key stakeholders are informed about the EPR program	PRO funds and implements statewide consistent outreach and education campaigns for wide reach; evaluated in annual reports
11. Equity & Environmental Justice	Components that encourage equitable and just practices	Equity studies to identify how to improve access in underserved communities; advisory board representation by EJ organization; living wages; workplace conditions study and/or requirement
12. Enforcement & Penalties for Violation	Measures to ensure compliance with the EPR law and penalties for non-compliance	PRO responsible for ensuring producers are compliant; state enforces compliance and issues penalties for non-compliant producers
13. Stewardship Plan Contents	Minimum components of a stewardship plan describing how Responsible Parties will implement the EPR program	Participating producers; product categories; covered entities; funding mechanism; targets; collection & convenience; education; integration with existing programs/infrastructure; compliance; reporting; closure plan; other info

Element	Description	Policy Considerations
14. Annual Report Contents	Minimum components of an annual report that Responsible Parties will submit to the state	Materials introduced; targets; costs; financial audit; program issues; technical assistance provided; education; advisory board consultations; non-compliant producers; proposed amendments; recommendations for material changes; other info
15. Implementation Timeline	Schedule for the submission, review, and approval of program plans	Year 1 appoint PRO, advisory board, service providers register and state conduct assessment; Year 2 create statewide list, PRO submits first plan; Year 3 PRO implements approved plan, PRO covers costs and submits annual reports to state.
16. Additional Components & Definitions	Additional sections of the bill that do not fit in other elements and key definitions	Clear, consistent definitions

Public Comment

Public comments received by the Commission regarding extended producer responsibility for packaging are posted on the MassDEP EPR Commission webpage at https://www.mass.gov/info-details/extended-producer-responsibility-commission.

Plastics and Packaging Advisory Group

The Commission acknowledged the need for additional dialog and information in its pursuit of a recommendation on EPR for electronics. To achieve this, on May 21, 2025, the Commission established an advisory group to be comprised of commission members, stakeholders, and the public. The advisory group held meetings on June 30 and July 28, 2025. Advisory group agendas, slides, meeting notes and additional information can be found on the MassDEP EPR Commission webpage at https://www.mass.gov/info-details/extended-producer-responsibility-commission.

DRAFT PACKAGING EPR RECOMMENDATION

The Commission endorses the concept of EPR for plastics and packaging. Due to the vast amount of technical information and expanded stakeholder engagement needed to advance such an initiative, the Commission recommends that MassDEP be charged with establishing a subcommittee of its Solid Waste Advisory Committee to further discuss EPR for plastics and packaging and be provided the necessary resources to pursue a needs assessment, which will help determine how EPR for plastics and packaging could have a meaningful impact on advancing material recovery in the Commonwealth.