



Appendix

Tackling Plastic Pollution Through Producer Accountability

An Ocean Conservancy Toolkit for Comprehensive Extended Producer Responsibility in the U.S.

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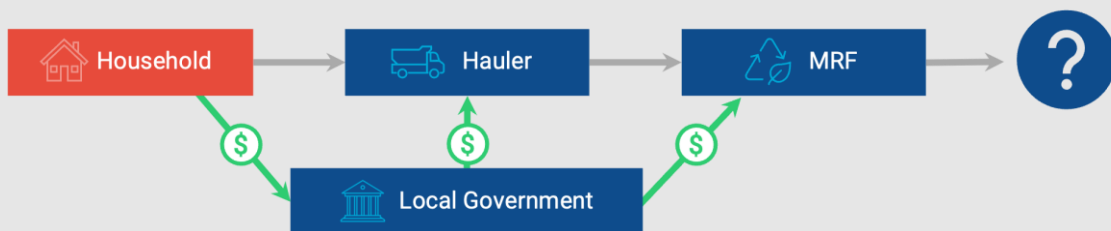
Glossary

- **Advisory Board** – The Advisory Board is established by the state agency charged with implementing the legislation to provide feedback and technical expertise from a diversity of stakeholders. The composition of the board is defined in the legislation.
- **Comprehensive EPR** – Comprehensive EPR is a policy approach that combines extended producer responsibility (EPR) for packaging and paper products, deposit return systems (DRS) for beverage containers and source reduction mandates for single-use plastics. Taken together, these policies represent the strongest, most comprehensive approach to tackling our plastic pollution and waste management crises.
- **Department** – The state agency with oversight over solid waste and recycling. The department is responsible for overseeing and implementing the legislation as well as enforcing compliance.
- **Deposit Return System (DRS)** – A deposit return system (DRS), also known as a recycling refund or bottle bill, is a type of EPR policy that provides a financial incentive through a deposit paid at the point of purchase for consumers to return a beverage container for recycling or reuse.
- **End of life services** – Reuse, collection, recycling and composting services for packaging and paper products and reuse, collection, recycling and redemption services for beverage containers.
- **Extended Produced Responsibility (EPR)** – Extended producer responsibility (EPR) programs shift the costs of local recycling programs (collection, sorting, and processing materials) and other end of life services from ratepayers and local governments to the producers of packaging and paper products while also providing a tangible mechanism to create performance standards for producers to achieve better environmental and social outcomes.
- **Performance standards** – Performance standards are targets set in the legislation that the producer responsibility organization (PRO) needs to achieve through the development and implementation of their producer responsibility plan. Performance standards in the legislation include source reduction, reuse requirements and recycling rates.
- **Producer** – Producer is defined in the legislation as the entity that is required to comply with the law, including through joining a PRO, paying fees for all packaging, paper products or beverage containers sold into the state, and redesigning their products. The definition in the legislation follows a hierarchy to identify the entity that is most responsible for upstream design decisions, including the:
 - Brand owner/manufacturer;
 - Licensee of a brand or trademark;
 - Franchisor for a franchise that operates in the state; or
 - Importer (by either direct distribution or online sales).
- **Producer Responsibility Organization (PRO)** – A PRO is the compliance entity established to help producers fulfill their obligations under the comprehensive EPR program. Its primary obligation is to meet the performance standards and other requirements of producers outlined in the legislation, which it does through collecting and managing fees from producers, working with member companies to advise on redesign and reduction, contracting with waste management entities and municipalities to provide end of life services and collecting data from producers to make available in annual reports and audits. It must be set up as a 501(c)(3) nonprofit.

Comprehensive EPR Flow Chart

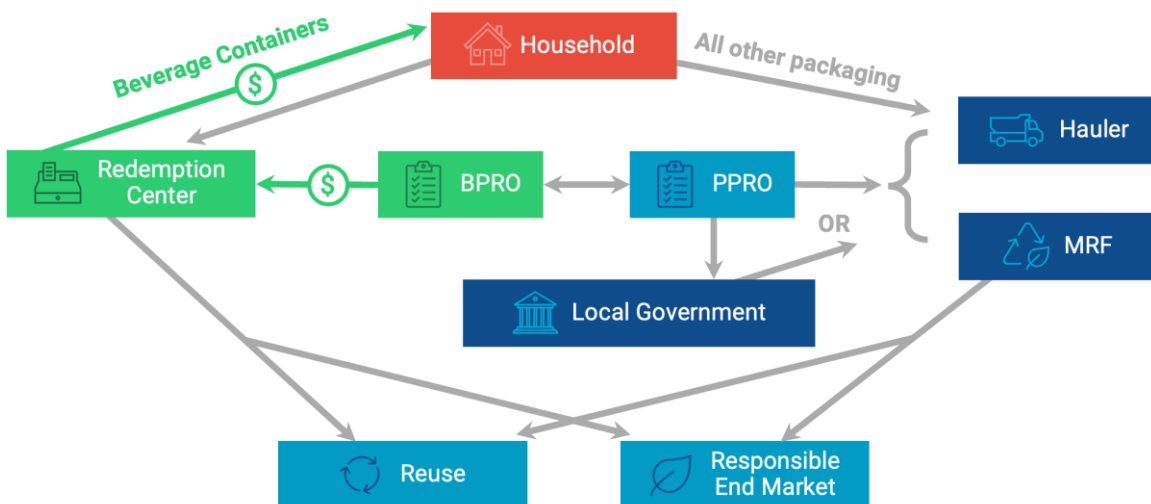
Status Quo

Under the current system, packaging, paper products and beverage containers used by households are collected through curbside collection by haulers for recycling and are then sorted at a material recovery facility (MRF) before being sent to processors or reclaimers for recycling with little to no transparency. Households pay for recycling as ratepayers (through utility bills) and taxpayers. The local government is then responsible for managing and paying for the recycling system. This represents the best-case scenario under the status quo—many households currently lack access to curbside recycling and are either responsible for finding alternative recycling methods or send their recyclables to a landfill through trash collection.

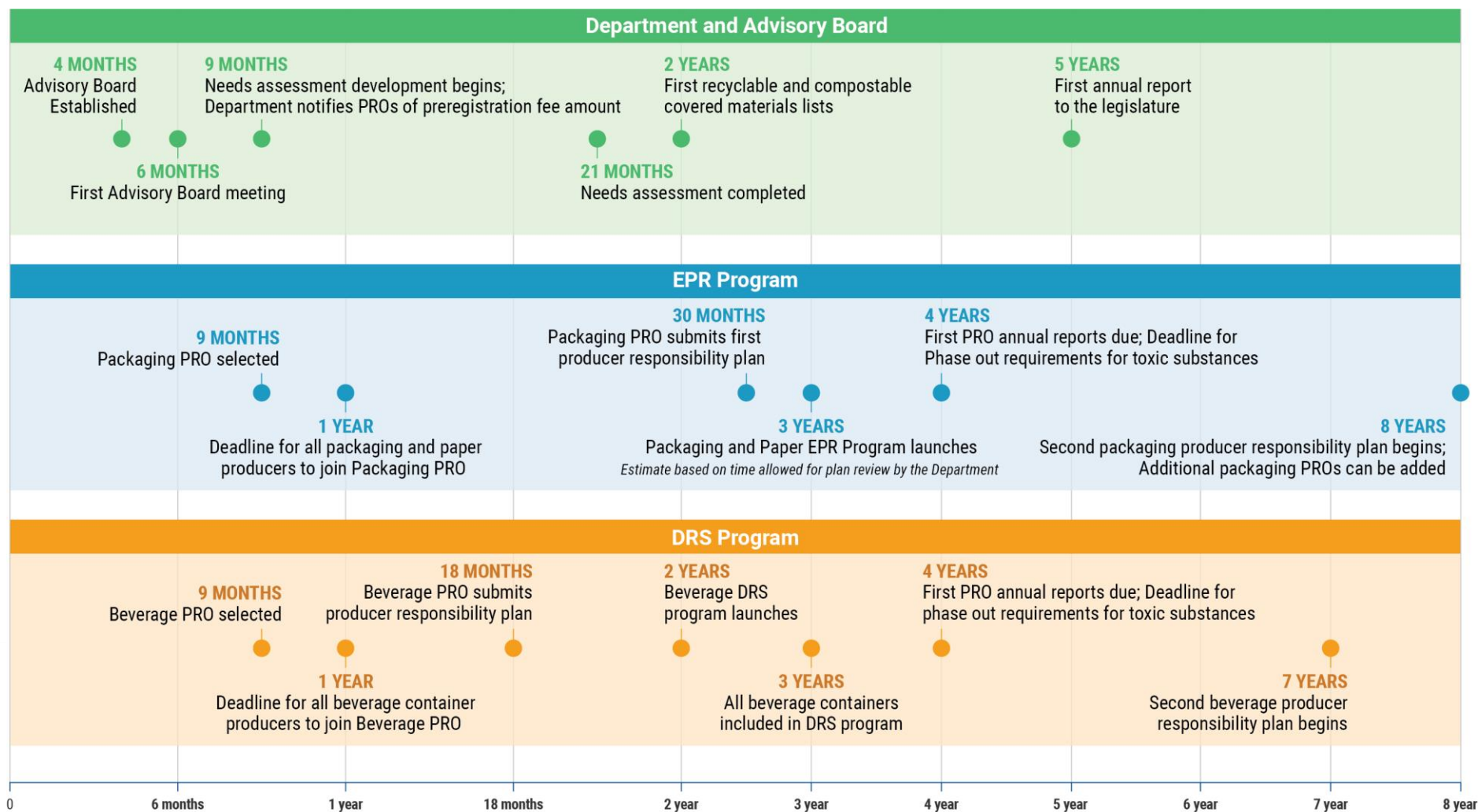


Comprehensive EPR

In a comprehensive EPR system, households that already have access to recycling continue to participate as normal for packaging and paper products and access to convenient recycling will expand to other households that have lacked equitable access to date. The packaging and paper products are then collected by haulers, sorted at MRFs and sent to responsible end markets for recycling with increased transparency and oversight over the whole process. The Packaging PRO is responsible for paying for this entire recycling process, rather than ratepayers and the local government. While collection for compostable or reusable materials may look different, the costs for covered materials flowing through those systems will also be paid for by the Packaging PRO. For beverage containers, households will bring them back to redemption locations that are as convenient as purchasing those beverages themselves and receive their \$.10 deposit back in exchange. The two PROs will work together to coordinate cost-sharing of materials that end up in each other's systems (e.g., beverage containers that end up in MRFs). Both of these systems will also invest in and support the build out of reuse infrastructure, which is all but non-existent at the moment.



Model Legislation Timeline



Packaging and Paper Performance Standards

Time after enactment	Reuse, Recycling, Compost	Single Use Plastic Packaging Reduction	Minimum Postconsumer Recycled Content (PCR) Requirements
8 years <i>or end of first producer responsibility plan, whichever is sooner</i>	65% reused, recycled or composted, with minimum 10% reusable	15% source reduction	<ul style="list-style-type: none"> Glass: 35% PCR Kraft paper, corrugated cardboard, boxboard: 25% PCR PET packaging, except thermoforms: 45% PCR PET thermoforms: 30% PCR HDPE bottles: 25% PCR PP packaging: 25% PCR
13 years <i>or end of second producer responsibility plan, whichever is sooner</i>	75% reused, recycled or composted, with minimum 20% reusable 100% designed to be reusable, recyclable or compostable	25% source reduction	

Beverage Container Performance Standards

Time after enactment	Reuse / Recycling	Redemption	Minimum Postconsumer Recycled Content (PCR) Requirements
2 years + 1 month	100% of redeemed beverage containers are reused or recycled		
5 years		70% redemption	
7 years <i>or end of first beverage producer responsibility plan, whichever is sooner</i>	15% reusable	75% redemption	<ul style="list-style-type: none"> Glass: 35% PCR PET: 45% PCR HDPE: 25% PCR PP: 25% PCR Aluminum: 50% PCR
9 years		85% redemption	
11 years		90% redemption	
12 years <i>or end of second beverage producer responsibility plan, whichever is sooner</i>	25% reusable		

Frequently Asked Questions

1 Has comprehensive EPR worked in other places?

EPR for packaging and paper products is a tried and tested policy that has been successfully implemented around the world for decades. Research from other countries has found that passing EPR policies for packaging and paper products drives recycling rates to above 75%.ⁱ EPR has been combined with DRS successfully as well, with many jurisdictions adding one policy to the other after recognizing the added benefits of having both in place. For example, when Lithuania added DRS to their existing EPR system, the recycling rate for PET water bottles went from less than 33% to 92%.ⁱⁱ In the United States, three of the five states that have passed EPR policies already have DRS policies in place, highlighting the added benefits of these programs working together and two of the five states have, or will develop, targets for reduction and reuse.

2 What types of materials are covered by this model legislation?

All packaging, paper products and beverage containers are covered by this model legislation, regardless of material (e.g., paper, plastic, glass, metal or otherwise). It also includes primary packaging (e.g., an individual shampoo bottle), secondary packaging (e.g., the plastic film wrap connecting two shampoo bottles to be sold as a set) and tertiary packaging (e.g., the cardboard box containing multiple sets of shampoo bottles for shipment).

3 What does a comprehensive EPR program mean for consumers?

- A consumer or resident under a comprehensive EPR program will receive improved collection, recycling, composting and reuse services for packaging and paper products at no additional cost. PROs will be held to convenience standards to ensure that curbside programs for these materials are as convenient as trash pickup and no less convenient than before the program was enacted. Instructions for how to dispose of materials may change, but public education and outreach will be paid for by the PROs to make these changes easier for consumers. Producers are held accountable to targets for the percentage of materials that are actually reused, recycled or composted so they also have incentives to make these systems work for consumers.
- Consumers will pay a 10-cent deposit for beverage containers that can be redeemed through convenient redemption locations throughout the state that must be as convenient as the purchase of the beverages.
- For all packaging, paper products and beverage containers, consumers will have added confidence that these products do not contain toxic substances and that their efforts to properly dispose of materials actually result in them being reused, recycled or composted.

4 Why set up a DRS program in addition to an EPR program?

Based on data from states with existing DRS systems, this model leads to more beverage containers being returned for recycling than through curbside collection. Additionally, keeping beverage containers separate from other materials makes it easier to process beverage containers through a reuse system or recycle into food grade PCR that can be used to create new beverage containers. DRS programs have also been found to have more immediate environmental benefits including significant litter reduction both for beverage containers and as well as litter overall. As beverage containers are prime targets for reuse and refill systems, a separate DRS program will also enable the development of reuse infrastructure specifically for beverage containers. Coupling EPR with DRS will achieve the best reuse and recycling outcomes for each covered material and will result in better near-term environmental outcomes from reduced pollution. Additionally, setting up both programs at the same time creates more opportunity for coordination and efficiency between the EPR and DRS programs and reduces disruption to consumers and local governments.

5 Why have producers manage the PROs instead of the government?

A PRO-run EPR program means that the onus of meeting performance standards ultimately lies with the producers, where it belongs. With strong government oversight, having a PRO-run EPR program means there are more opportunities to revise the plan or fees, or hold producers accountable if they are out of compliance. The PRO is ultimately set up as a compliance mechanism for producers, which also means it's shielded from changes in the political landscape, unlike if the program was run by the government. Ultimately, the goal of comprehensive EPR is to make less wasteful products and packaging to achieve the reduction, reuse and recycling targets. Those decisions fall to producers, which is why it's important for producers to assume responsibility for their products and the end of life systems through the PRO to incorporate those changes upstream. Producers also know their products, supply chains and markets better than the government, which means they can more quickly adapt to changes and can run end of life services more efficiently.

6 Why does the model legislation only allow for one Packaging PRO initially?

The legislation requires one PRO for the packaging and paper EPR program and one for the beverage container DRS program with allowance for additional packaging PROs in the future after the first planning period. Having one PRO for each program as implementation begins will provide for greater ease and certainty during the startup of the programs. The Packaging PRO and the Beverage PRO, if different, will be required to develop a coordination plan to ensure that materials are tracked and reported, costs are covered in both the EPR and DRS programs, and that programs complement each other both financially and operationally. If there are multiple PROs in the future, they will participate in the coordination plan to ensure performance standards are met despite more actors in the system.

7 Why include performance standards (e.g., rates and dates) in legislation?

The actions and investments by the PRO are all ultimately in service of achieving the performance standards laid out in the policy. Including these standards in statute gives the legislature ownership of deciding how it wants the end of life services in the state to perform in the future to match the needs of the state.

8 How were the rates and dates set?

The rates and dates set in the model legislation were determined based on best practices in existing state laws (e.g., the source reduction rate closely mirrors that of CA's SB 54) and the expected performance outcomes in a well-operating comprehensive EPR system (e.g., the recycling rates are based on what rates have been achieved in Canada and the EU in systems operating with EPR and redemption rates are based on U.S. states that have well operating DRS policies).

9 Why does the needs assessment only include packaging and paper products?

There is existing infrastructure and systems for municipal and curbside recycling that need to be factored into the future plans and operation of the EPR program for non-beverage container packaging (e.g., packaging and paper products). The needs assessment is designed to catalog the current system and identify gaps that need addressing to achieve the performance standards of the system. The legislation provides an option for beverage containers to be included in future needs assessments, as determined by the Department.

10 Why is the DRS program on a different timeline than the EPR program?

Because the start-up of the DRS program doesn't require a needs assessment, its implementation does not require the extra time allowed for the EPR program to conduct the needs assessment before developing its producer responsibility plan. This allows for a phased-in roll out of the programs to make start-up and implementation easier and enables an expedited timeline for achieving environmental outcomes.

11 Who will receive end of life services through the program?

Producers are required to provide end of life services for all single-family and multi-family residences in the state. The needs assessment will also identify nonresidential locations like public places, small businesses, food service locations, schools, hospitality locations and state and local government buildings that could be provided with end of life services to increase statewide reuse, recycling and composting rates to meet the goals of the Act in a cost-effective manner.

12 How will local governments benefit from comprehensive EPR?

Currently local governments are responsible for managing and funding end of life services for packaging, paper products and beverage containers. Often the materials coming through the waste stream are not designed for recycling or composting, and material construction and labeling can lead to confusion for consumers and costly contamination in waste streams. Comprehensive EPR shifts those burdens to producers and takes these costs off local government budgets, which adds up to significant cost savings for local governments. In addition to the economic savings, the PRO will also support the operation of end of life services for covered materials as well as consumer education and outreach, which saves local governments additional time and money.

13 How will the PRO achieve the performance standards, especially for reducing single-use plastics?

While some of the performance standards in the legislation are requirements for individual producers (e.g., incorporation of postconsumer recycled content), others are PRO-wide mandates such as the source reduction requirement for single-use plastic packaging. These are set as PRO-wide targets to allow for flexibility in how these targets are met and to enable the PRO to create mechanisms to level the playing field, such as by charging higher fees for producers that can't contribute to the reduction target while charging lower fees to producers that contribute more to the target. In this way, the PRO can ensure compliance with the plan and performance standards. If the PRO or individual producers don't achieve their performance standards, or otherwise fall out of compliance, the state can take enforcement action.

14 Why should the EPR and DRS programs cover all material types, not just plastics?

While plastics have the lowest recycling rates and cause the most environmental impacts as pollution, all material types need



improvements in recycling. For example, only about 1/3rd of paper or aluminum is recycled. If all materials would benefit from improvements in the system, all material should be responsible to pay for those benefits. Moreover, as more products switch away from plastic packaging due to upstream redesign and source reduction requirements, the use of other materials will increase, which in the absence of improvements to the recycling system will result in the need for more virgin materials. To prevent those types of perverse outcomes and achieve the most environmental benefit, it is crucial that these policies cover all material types.

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- ⁱ ["Increasing Recycling Rates with EPR Policy."](#) (2023) The Recycling Partnership.
["The 50 States of Recycling."](#) (2023). Eunomia.
- ⁱⁱ ["Government of Poland publishes deposit return system law."](#) TOMRA.
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