Ocean Conservancy®

Tackling Plastic Pollution Through Producer Accountability

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

Plastic production has increased exponentially over the last few decades, fueling a plastic pollution crisis that has impacted every part of our planet with over 11 million metric tons of plastic entering our ocean globally every year.

The surge in single-use plastic for packaging and food ware, driven by cheaply available fossil fuel feedstocks, has overrun our already struggling recycling system in the U.S., increasing pollution, costs and community impacts.

While banning problematic and unnecessary single-use plastics can have a significant impact on reducing ocean plastic pollution,[1] a comprehensive approach is needed to tackle this crisis, including making less plastic, better management of the plastics we do use and remediation of plastics already in the environment. Extended producer responsibility (EPR) policies provide an opportunity to finally control a previously unregulated problem in the U.S.: single-use packaging. By holding producers financially accountable for the entire lifecycle of their product and for working with other producers to meet environmental outcomes set by the legislature, EPR policies provide a critical opportunity for oversight, transparency and regulation of packaging and single-use plastics. In recent years, five U.S. states have passed EPR policies to reduce pollution from plastic and other packaging waste.

What is comprehensive EPR?

Comprehensive EPR policies combine EPR for packaging and paper products, deposit return systems (DRS) for beverage containers and source reduction for single-use plastics. While these policies can exist independently, they work best in tandem to drive better environmental outcomes.

- EPR programs for packaging and paper products have gained momentum in the U.S. as a policy to hold producers financially responsible for the environmental impacts of their packaging. Producers are charged a fee for all the packaging they put on the market, which varies based on recyclability and other environmental design decisions and forces producers to factor environmental outcomes into their bottom lines, leading to less wasteful products.
- DRS for beverage containers (also known as bottle bills or recycling refunds) have been widely used in the U.S. since the 1970s. DRS policies require a deposit, charged on the purchase of a beverage container, that is then returned to the consumer at a point of return to drive higher recycling rates of beverage containers.
- Source reduction policies require a reduction in single-use plastics produced over time. It is distinct from virgin plastic reduction, which focuses on using less virgin resin. While both approaches to reduction can result in greenhouse gas (GHG) emission reductions and improvements in the waste management system, only source reduction confers major pollution reduction benefits by reducing the number of single-use plastics on the market.

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Transforming the Plastics Lifecycle

Ocean Conservancy's Model Comprehensive EPR Policy

Not all EPR policies are the same. To achieve the best environmental, social and economic outcomes, EPR policies need to be well-crafted, outcome-focused and implementable. Policies also need to be crafted with local communities and experts to fit the local context. Based on Ocean Conservancy's experience drafting groundbreaking laws, like California's SB 54,[2] Ocean Conservancy has developed model comprehensive EPR legislation to enable states to address this crisis holistically. This toolkit outlines our model EPR policy that combines an EPR program for packaging, DRS for beverage containers and source reduction requirements for single-use plastics to create transformational change to protect our ocean, lakes, waterways and communities from plastic pollution.

We developed this model to include the strongest strategies to address plastic pollution through legislation in a way that is implementable and with the most immediate positive impact. This policy is aimed at state-level legislation because state and local governments are primarily responsible for regulating and funding plastic waste management, recycling and cleanup efforts. States also stand to gain the most in passing comprehensive EPR policy that will deliver strong environmental, social and economic outcomes.

The status quo is unsustainable: Plastic pollution has impacted every corner of our planet from the deepest ocean trenches, to the highest mountains and even inside our own bodies. If we want to truly tackle this crisis, we need a systemic change.

Beyond the Status Quo

The Need for Comprehensive EPR

Comprehensive EPR policies hold producers financially responsible for meeting strong environmental outcomes for the packaging they put onto the market and empower states to address the plastic pollution and the waste management crises at a systemic level. Not only do these policies provide long-term sustained funding for reuse, recycling and composting infrastructure—saving states and ratepayers millions of dollars—but they also realign producers' financial incentives to incorporate environmental and community protections. When producers bear the costs of waste management for their packaging, they are motivated to use less material, switch to reusable, recyclable or compostable alternatives, and eliminate hard-to-recycle components.

While we cannot recycle our way out of the plastic pollution crisis, we need recycling to work to reduce our dependence on fossil fuels. How we recycle also matters, which is why EPR policies should invest in mechanical recycling methods that have demonstrated environmental benefits. Incentivizing the return of beverage containers through DRS not only leads to higher recycling rates of those materials compared with other recycling collection methods but is also proven to lead to a significant reduction in plastic pollution and a direct and an immediate benefit for our ocean and communities. Since recycling alone cannot solve this problem, it is critical that these policies include source reduction targets, support for the reuse economy and upstream redesign requirements to move towards a less wasteful future.

Well-crafted comprehensive EPR policies are about much more than recycling. They are about reimagining our relationship with materials, from production to disposal, to create a more equitable and sustainable future.

Summary of Model Legislation

The Model Pollution Prevention and Producer Responsibility Act

- Requires producers, through Producer Responsibility Organizations (PROs), to **pay for collecting and managing covered materials** in the state through convenient and equitable reuse, recycling and composting (collectively called "end of life service costs"). Producers will have incentives for reuse and other product features that reduce environmental and human health impacts of covered materials.

- Creates a **DRS program** for beverage containers through an applicable refund value and convenient redemption mechanisms throughout the state to make beverage container return accessible to consumers.

- Establishes **performance standards** to ensure programs deliver on environmental outcomes, including requirements for **source reduction, reuse, redesign, removal of toxic substances** and high standards to ensure that covered materials are actually reused, recycled or composted. Target outcomes include:

Within **10 years** of the EPR packaging program launch:

25% reduction in single-use plastics

75% recycling rate

20% reuse rate

Within **10 years** of the DRS program launch:

90% redemption rate

25% reuse rate

- Establishes a **Plastic Pollution Mitigation Fund**, funded by an annual combined contribution of $250 million from PROs to address the impacts of plastics on communities, human health and the environment, including the impacts of microplastics. 60% of funds will go to environmental justice areas most impacted by plastic pollution.

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How Comprehensive EPR Addresses Problems in the Current U.S. System

Environmental Challenges

Problems in the Current System	How They're Addressed Under Comprehensive EPR
Plastic pollution is at a crisis level. • Over 11 million metric tons of plastic enter the ocean every year.[3] • Roughly 40% of all plastics produced annually is for single-use packaging.[4]	✓ Establishes enforceable source reduction and reuse performance standards that directly tackle our reliance on single-use plastics. ✓ Dramatically reduces packaging pollution, including reducing overall littered packaging by 65%.[5]
Plastic production is fueling the climate crisis. • Over half of all plastics ever made have been produced in the last 20 years.[6] • Plastics are made from fossil fuels. If the industry were a country, it would be the fifth largest emitter of GHG in the world.[7]	✓ Decreases packaging-related GHG emissions by 70% by increasing mechanical recycling.[8] ✓ Internalizes the costs of end-of-life on producers' bottom lines, incentivizing more sustainable product design and less waste.
Pollution from across the plastics lifecycle disproportionately impacts environmental justice communities.[9]	✓ Incorporates protections for environmental justice communities into the PRO programs and implementation process. ✓ Prohibits harmful chemical recycling technologies. ✓ Ensures environmental justice community members have a voice in the process through roles on the Advisory Board.

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Consumer Challenges

Problems in the Current System	How They're Addressed Under Comprehensive EPR
Confusion around what is recyclable. • Nearly 10,000 separate recycling systems across the country, which each operate with different rules.[10] • Less than half of plastic packaging is recyclable.[11]	Requires upstream redesign to ensure that all packaging is either reusable, recyclable or compostable.
Lack of trust in what is on the market and in the recycling system. • Only 73% of American households have access to convenient, on-property recycling. Access is significantly lower for multifamily homes at only 37%.[12]	Requires investment by producers to expand equitable access to reuse, recycling and composting services statewide, including building out consumer-driven and convenient return points for beverage containers.
Lack of input and oversight into the waste management system. • 85% of American voters believe that it's deceptive to put the recycling "chasing arrows" symbol on a plastic that cannot be recycled.[13] • According to a report by the UN Environment Programme, there are over 13,000 chemicals associated with plastics and plastic production, nearly a quarter of which have one or more hazardous property of concern.[14]	Creates an inclusive stakeholder process through the Advisory Board that incorporates perspectives from across the state and the supply chain.

Local Government Challenges

Problems in the Current System	How They're Addressed Under Comprehensive EPR
High cost of operating recycling systems driven by lack of sustained funding and low-quality outputs. • By some estimates, it will take $17 billion of investment to make recycling as accessible as trash in the U.S.[15]	✓ Cuts costs for ratepayers and municipalities by shifting the costs to sustain and improve the reuse, recycling and composting system to producers. ✓ Creates up to nine times the jobs in the recycling sector over landfilling.[16] ✓ Achieves higher recycling rates at a faster pace, achieving a 90% recycling rate for beverage containers.[17]
Decrease in landfill space.	✓ Diverts material from landfills and incinerators by increasing recycling collection and rates, decreasing harms from disposal and saving space.
Lack of investment to enable reuse operations.	✓ Provides incentives via a refund (in the DRS program) and the collection network to enable scaling reuse and refill programs for beverage and other packaging. ✓ Supports the development of shared infrastructure funded by the PROs to achieve reuse targets.
Lack of data and reporting on what packaging is on the market and its end of life.	✓ Requires comprehensive needs assessment that identifies and measures exact state needs on a recurring basis. ✓ Requires annual reporting by all participants in the program, fostering transparency and enabling monitoring of outcomes. ✓ Requires auditing of PROs to increase oversight and transparency.

Producer Challenges

Problems in the Current System	How They're Addressed Under Comprehensive EPR
Limited access to high quality recycled content for use in meeting producers' ESG goals.	✓ Improves the mechanical recycling system which will increase quantity and quality of postconsumer recycled content across material types for use by producers.

Ten Principles for EPR in the U.S. to Reduce Plastic Pollution

Reduction and reuse

Performance standards should be included in the bill to achieve strong environmental outcomes including:

- Single-use plastic source reduction targets.
- Reuse targets.
- Recycling targets.

Comprehensive

EPR, DRS and source reduction policies should be enacted at the same time.

Redesign

All packaging, paper products and beverage containers, regardless of material, must be designed to be reusable, recyclable or compostable, including phasing out toxic substances.

Dedicated, sustained financing paid for by producers

PROs should collect fees from producers to fully fund convenient recycling, composting, reuse and beverage container return programs.

- Fees should be eco-modulated to further incentivize better product design.
- Refund value for all beverages should be set at $0.10.
- Unredeemed deposits in the DRS program should be reinvested in the system

Material inclusive

All single-use packaging and packaging-like products should be covered.

- The DRS program should cover at a minimum all glass, metal, plastic and paper beverage containers.
- The EPR program should cover all single-use packaging and packaging-like products, including any packaging not included in the beverage container program, as well as printed paper/paper products.

Producer accountability through a PRO

Producers are required to join a PRO, which collectively is required to finance an improved reuse, recycling and composting system and meet performance standards.

- The EPR and DRS programs should be managed by non-profit PROs.
- One PRO for each program, or one joint PRO, should be allowed initially, with additional PROs allowed in the future.
- PROs should be required to coordinate to achieve the best outcomes

Mechanical recycling

Comprehensive EPR policies should support mechanical recycling to displace the need for virgin material by including a:

- Strong criteria-based definition of recycling that excludes harmful chemical recycling technologies and includes a requirement for materials to be sent to a responsible end market.
- Strong definition of responsible end market

Oversight, transparency, and enforcement

Implementation of EPR and DRS programs should include strong oversight by a stakeholder Advisory Board and the state government complete with annual reporting and third-party audits to provide clear, transparent tracking on system performance.

Remediation

In addition to paying fees for improving the system, plastic producers should pay into a fund to remediate past harms from across the plastic lifecycle, prioritizing communities and environments impacted the most by plastics.

Improved equity

In addition to expanding equitable access to reuse, recycling and composting services, comprehensive EPR should include:

- Protections for environmental justice communities.
- Active participation and consultation of environmental justice communities, including through seats on the Advisory Board.

Ocean Conservancy is working to protect the ocean from today's greatest global challenges. Together with our partners, we create evidence-based solutions for a healthy ocean and the wildlife and communities that depend on it. For 40 years, we have been on the forefront of tackling one of the ocean's biggest threats, plastic pollution, through organizing the largest cleanup effort in the world and successfully advocating for state, national and international policies to prevent plastics from becoming pollution in the first place.

Additional information available upon request.
Please contact Angela Noakes at anoakes@oceanconservancy.org

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Model legislation and additional information available online.

Endnotes

1 "Charting a Course to Plastic Free Beaches." (2023). Ocean Conservancy.
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10 "Management of Municipal Solid Waste." (2011). US Environmental Protection Agency.
11 "State of Recycling Report." (2024). The Recycling Partnership.
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14 "Chemicals in Plastics - A Technical Report." (2023). UN Environment Programme.
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