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Extended Producer Responsibility & Policy as part of a Circular Economy: A sample of policy efforts from across the country



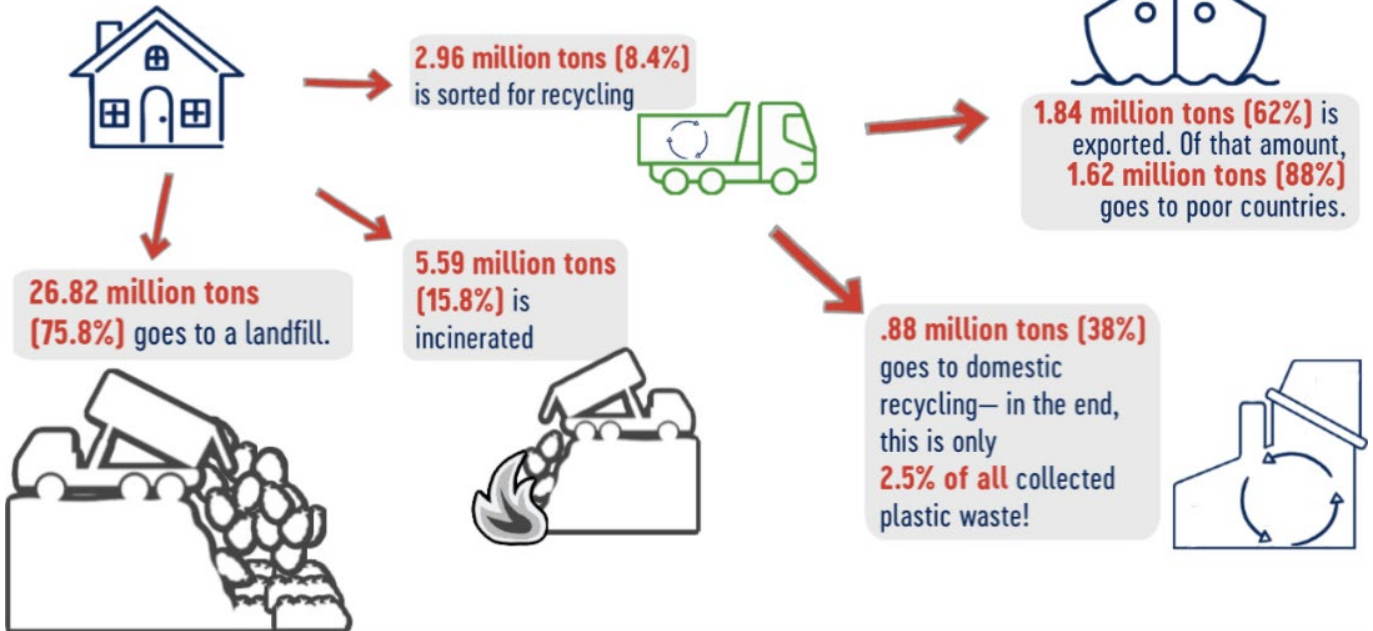
The New Mexico Recycling Coalition



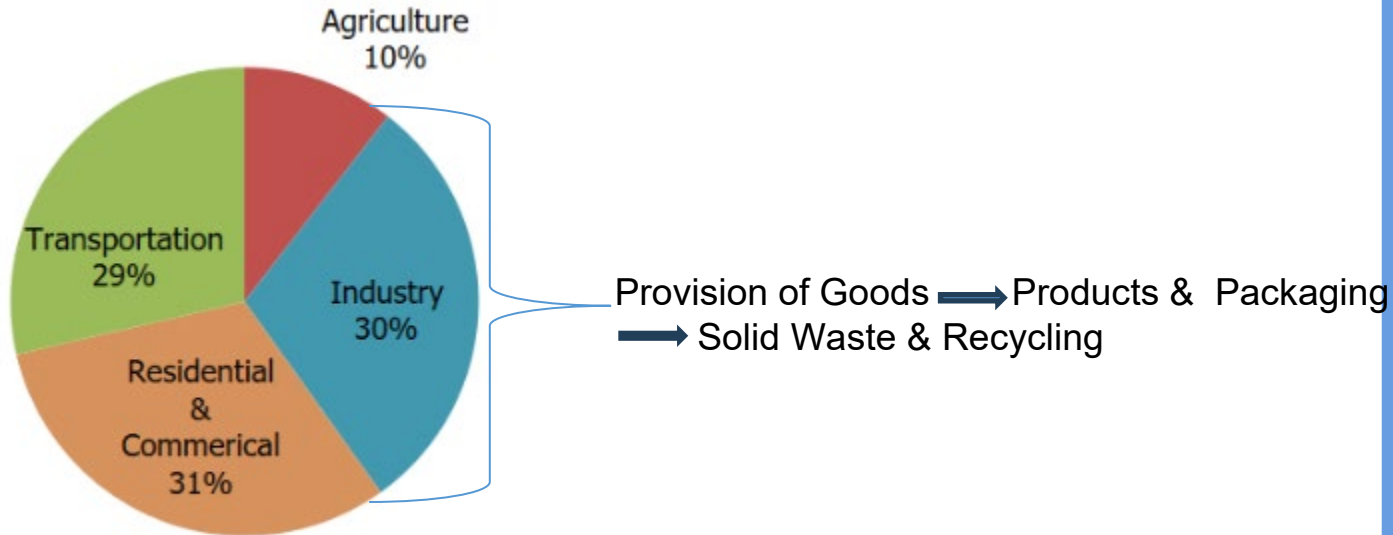
Sarah Pierpont
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The status quo isn't working

WHAT HAPPENS TO THE **35 MILLION TONS OF PLASTIC WASTE** WE DISPOSE OF EACH YEAR?



Total U.S. Greenhouse Gas Emissions by Economic Sector in 2022



Total U.S. Greenhouse Gas Emissions by Economic Sector Including Electricity End-Use Indirect Emissions

Linear vs. Circular Economy

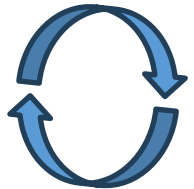
In our current economy, we take materials from the Earth, make products from them, and eventually throw **them away as waste** – the process is linear.



In a circular economy, by contrast, **we stop waste being produced in the first place**. The circular economy is a system where **materials never become waste and nature is regenerated**. In a circular economy, products and materials are kept in circulation through processes like **maintenance, reuse, refurbishment, remanufacture, recycling, and composting**.

The circular economy is based on three principles, driven by design:

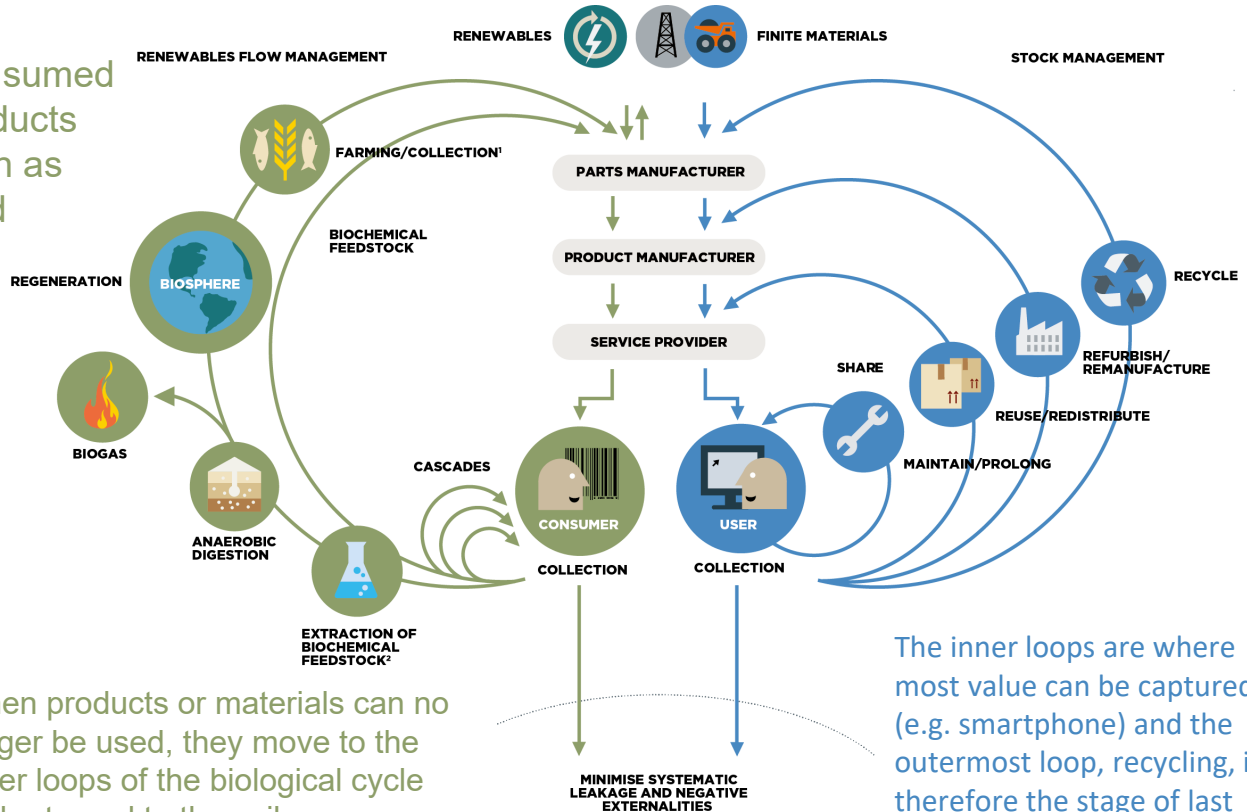
- **Eliminate waste and pollution** design OUT waste and pollution = source reduction, pollution prevention, elimination of toxins, etc. (REDUCE)
- **Circulate products and materials (at their highest value)** keep products and materials in use (REUSE)
- **Regenerate nature** – nature is circular already, naturally recycles items, like leaves falling on the forest floor (RECYCLE)



Biological Circularity = Regeneration

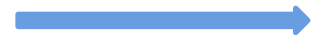
Technical Circularity = Products that are used

Consumed products such as food



When products or materials can no longer be used, they move to the outer loops of the biological cycle and returned to the soil

The inner loops are where most value can be captured (e.g. smartphone) and the outermost loop, recycling, is therefore the stage of last resort in a circular economy.

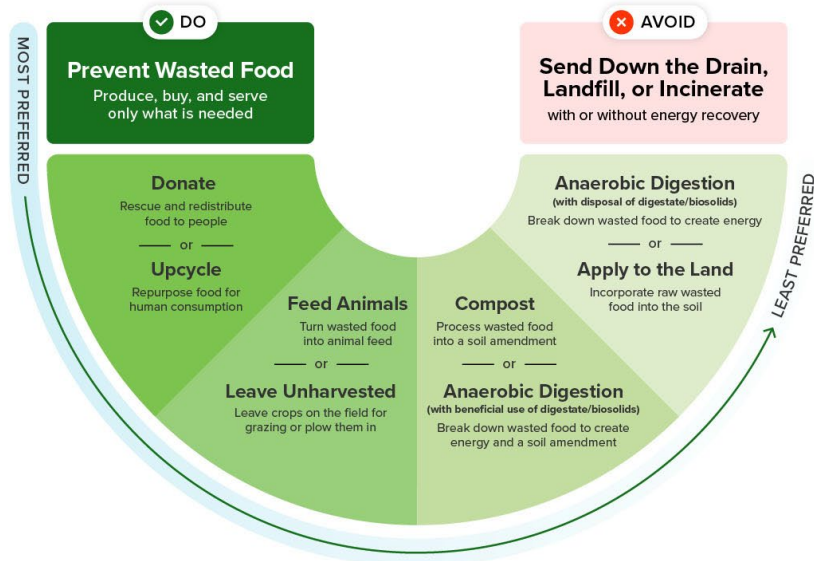


Organics as part of a Circular Economy



Wasted Food Scale

How to reduce the environmental impacts of wasted food



One of the best examples in NM of a truly circular economy is organics diversion

October 2023

Organics as part of a Circular Economy

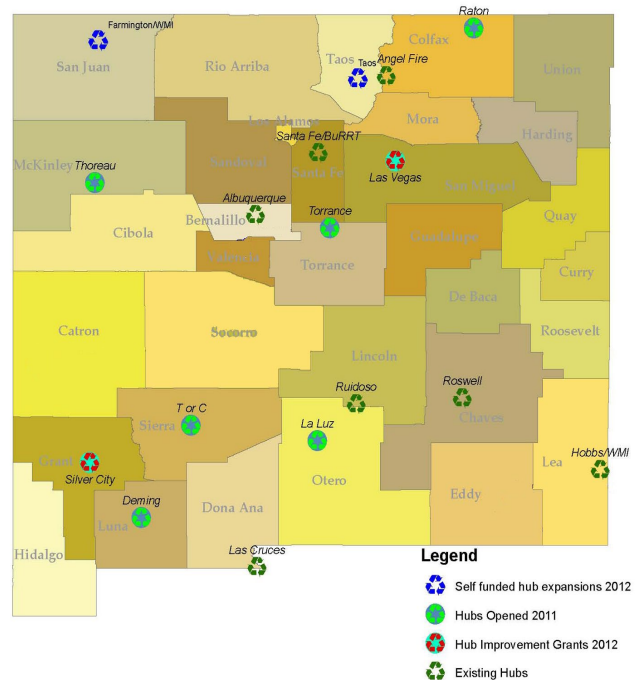


Reunity Resources 

- Organics! Optimal Localized Market! Only functions within about a 60-mile radius.

Linear vs. Circular Economy

What are things that **New Mexico's communities and solid waste professionals CAN DO** to transform our throwaway economy into one where waste is eliminated, resources are circulated, and nature is regenerated?






We can't do it all at once. Where should we start in NM?

How do we decide where to start? Which item(s) in the waste stream are the biggest nuisance and part of a linear economy?

Things to consider:

- **How toxic is it?**
- **Are there safer alternatives on the market now or coming soon?**
- **What have other states or countries done with the product/chemical?**
- **Is the international community limiting shipping/disposal?**



Poll Everywhere – WordCloud
Initial Input before you hear all of today's presentations & examples from other states

INPUT FROM YOU! What challenging items make your jobs harder as recyclers in New Mexico? Think Big or Small!

HINT: Remember our goals are to....

- Eliminate waste and pollution
- Circulate products and materials (at their highest value)
- Regenerate nature

Policy Tools to Drive a Circular Economy – SALES BANS

- Ban sale of mercury containing lightbulbs. California passed Assembly Bill 2208 in 2022 that sets phase out dates for compact fluorescent lamps (CFLs) and linear fluorescent lamps (LFLs) starting in 2024.
- In 2021 Maine banned intentionally added “forever chemicals” PFAS from some consumer products.

Sales Prohibitions on Products Containing Intentionally Added PFAS

Effective Date	Product Category
January 1, 2023	<ul style="list-style-type: none"> • Carpet or rug • Fabric treatment
January 1, 2026	<ul style="list-style-type: none"> • Cleaning product • Cookware product • Cosmetic product • Dental floss • Juvenile product • Menstruation product • Textile articles (with exception) • Ski wax • Upholstered furniture • Products listed that do not contain intentionally added PFAS but are sold, offered for sale, or distributed for sale in a fluorinated container or in a container that otherwise contains intentionally added PFAS.
January 1, 2029	<ul style="list-style-type: none"> • Artificial turf • Outdoor apparel for severe wet conditions unless accompanied with a disclosure: "Made with PFAS chemicals."
January 1, 2032	<ul style="list-style-type: none"> • Any products containing intentionally added PFAS sold in Maine unless the use of PFAS in the product is a currently unavoidable use. • Products that do not contain intentionally added PFAS but that are sold, offered for sale, or distributed for sale in a fluorinated container or in a container that otherwise contains intentionally added PFAS.
January 1, 2040	<ul style="list-style-type: none"> • Cooling, heating, ventilation, air conditioning or refrigeration equipment. • Refrigerants, foams or aerosol propellants.

Policy Tools to Drive a Circular Economy – SALES BANS

Sales Bans – Banning Nuisance Materials

- Over 500 municipalities in 28 states had plastic bag legislation in effect as of 2021. Additionally, 12 states have single-use plastic bag bans: California, Colorado, Connecticut, Delaware, Hawaii, Maine, New Jersey, New York, Oregon, Rhode Island, Vermont, & Washington
- A [recent report](#) found that plastic bag bans WORK to reduce the number of single use plastic bags used. Data from three states and two cities with bans = reduction of 6 billion single-use plastic bags used each year.



Policy Tools to Drive a Circular Economy – LANDFILL BANS

Landfill ban – Banning items from the landfill (e.g. lead acid batteries & motor oil in NM, what about adding aluminum cans?)

- If an item is banned from landfills, are you required to recycle it? Technically no, as 49 states have landfill bans but only 22 states have mandatory recycling laws.
- Vermont's 2012 Universal Recycling Law (Act 148) has phased in approaches including the ban of food scraps and other organics from the landfill effective July 1, 2020.
- Michigan – bans aluminum, glass, & plastic containers covered by their container deposit law, yard waste and tires from their landfills

Common Landfill Bans Items

1. Car batteries
2. Motor oil
3. Tires
4. Liquid waste (e.g., non-dried paint, household cleaners)
5. Untreated medical waste
6. Cathode ray tube (CRT) screens (tube monitors and TVs)
7. Products containing mercury
8. Yard waste
9. Computers
10. Nickel-cadmium batteries

Policy Tools to Drive a Circular Economy – TRUTH IN LABELING



Policy Tools to Drive a Circular Economy – TRUTH IN LABELING

California

SB 343 Truth in Labeling Law 2021

Under this law, a product or packaging may be considered “recyclable” in California if the product is of a “Material Type and Form” that is

- 1) collected in recycling programs that service at least 60% of Californians AND
- 2) sorted by large volume transfer/processing facilities (LVTPs) that service at least 60% of statewide recycling programs.

Oregon

SB 582 Truth in Labeling Task Force in 2021

The 2022 report recommends if a product /package has the recycling symbol on it, then it must:

- 1) Be listed on the Oregon local government collection list (the law created a uniform statewide collection list)
- 2) Be a beverage container covered by the state’s bottle bill
- 3) Be on the Oregon depot list (drop off) and include standard instruction language, e.g. "drop-off recycling only" or “recycle separately”

Policy Tools to Drive a Circular Economy – EXTENDED PRODUCER RESPONSIBILITY

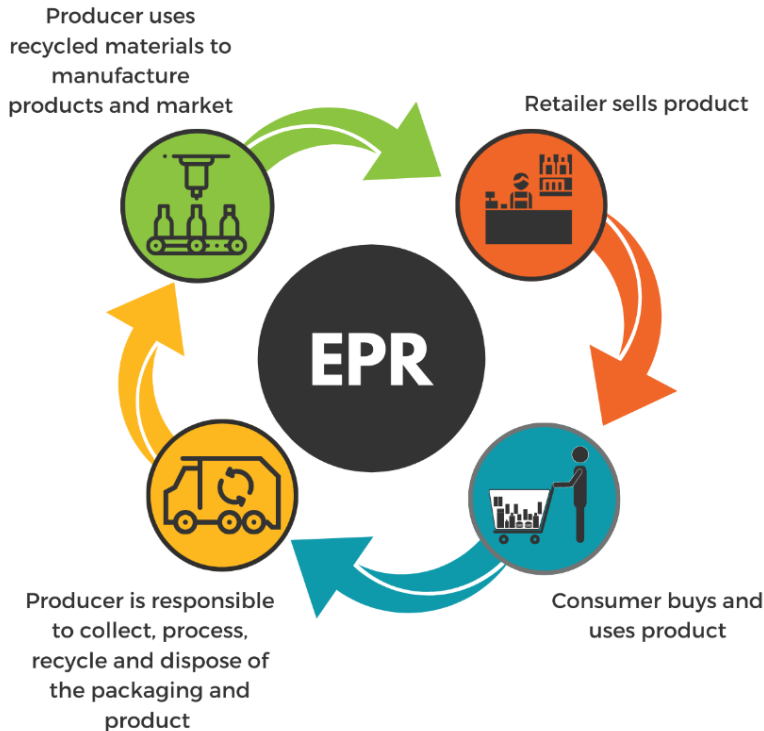


EPR shifts the responsibility for end-of-life management of products and packaging upstream to producers – rather than the public sector – and creates incentives for producers to incorporate environmental considerations into the design of their products and packaging

Goals and benefits of EPR:

- Reduce waste, maximize reuse, and boost recycling while minimizing greenhouse gas emissions and the use of toxic chemicals
- Minimize waste management costs, particularly for taxpayers and government agencies
- Create safe and desirable recycling and resource management jobs

Policy Tools to Drive a Circular Economy – EXTENDED PRODUCER RESPONSIBILITY



Principals of EPR



1. Producer Responsibility

Producers are required to design, manage, and finance programs for end-of-life management of their products and packaging as a condition of sale. These programs may or may not use existing collection and processing infrastructure. Programs should cover all products in a given category, including those from companies no longer in business and from companies that cannot be identified.

2. Level Playing Field

All producers within a particular product category have the same requirements, whether they choose to meet them individually or jointly with other producers.

3. Results-based

Producers have flexibility to design the product management system to meet the performance goals established by government, with minimum government involvement. Producer-managed systems must follow the resource conservation hierarchy of reduce, reuse, recycle, and beneficially use, as appropriate. All consumers have convenient access to collection opportunities without charge.

Principals of EPR Continued



4. Transparency and Accountability

Government is responsible for ensuring that producer programs are transparent and accountable to the public.

5. Roles for Government, Retailers and Consumers

Government is responsible for ensuring a level playing field for all parties in the product value chain to maintain a competitive marketplace and for setting and enforcing performance goals.

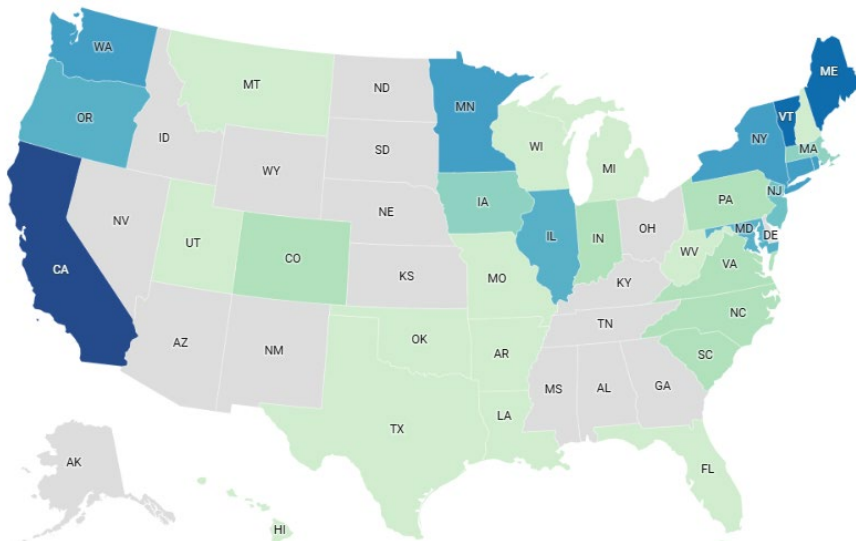
Retailers only sell brands within a covered product category that are made by producers participating in an industry program

Consumers have a responsibility to reduce waste, reuse products, use take-back and other collection programs..

Extended Producer Responsibility (EPR) laws in the United States

U.S. State EPR Laws (Product Stewardship Institute)

Please click on a state to stick the information box and click again to unstick; zoom in for state names.



139 laws*
19 products
33 states + d.c.

**while bottle bills are highly effective at recovering beverage containers, this does not include the 10 state bottle bills in the U.S. due to the different ways the policies shift responsibility to producers.*

**This map does not include local laws nor laws that ban the sale of toxic items or limit their disposal*

Number of State Laws



What types of products/materials are covered by EPR?

EPR BY PRODUCT

BATTERIES

CARPET

ELECTRONICS

GAS CYLINDERS

HOUSEHOLD HAZARDOUS
WASTE (HHW)

JUNK MAIL

LIGHTING

MATTRESSES

MEDICAL SHARPS

MERCURY AUTO SWITCHES

EPR BY PRODUCT

MERCURY THERMOSTATS

MOTOR OIL

PAINT

PACKAGING

PESTICIDES

PHARMACEUTICALS

PHONE BOOKS

RADIOACTIVE DEVICES

REFRIGERANT-CONTAINING
APPLIANCES

SOLAR PANELS

TEXTILES

TIRES

Single product EPR Example – New York

New York - Establishes a Carpet Collections Program law in 2021

- EPR law requires carpet producers to fund a convenient carpet collection program at no cost to NYS consumers.
- Includes carpets, modular carpet tiles, carpet pads & artificial turf
- A producer may not sell carpet in the state unless it participates in an approved carpet collection program plan.
- Producers are responsible for all costs associated with the implementation of their carpet collection programs.
- A producer or its representative organization must also provide an outreach and education program to inform consumers, carpet installers and others engaged in the management of discarded carpet
- Carpet producers must comply with applicable labeling and design requirements as well.
- Producers must submit annual reports to the state
- Includes the phase-out of PFAS in carpet
- Works to build supply chains for products made with recycled materials
- Requires new carpet be manufactured with increasing percentages of post-consumer recycled material, as well as sets specific goals for closed-loop recycling that will lead to the development of a more circular economy for the industry.



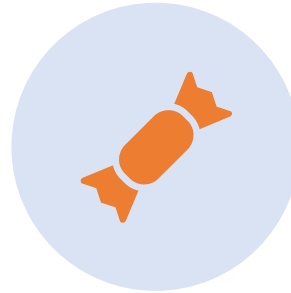
Carpet

Carpet can be toxic, but is highly recyclable.

The Packaging Problem

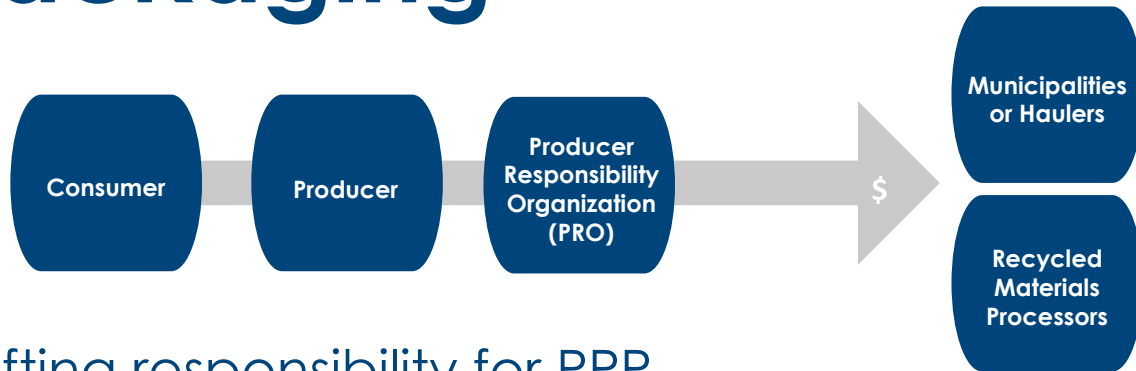


Market flooded
with packaging



Increasingly
complex materials

EPR for Plastics & Packaging



Shifting responsibility for PPP recycling

to producers

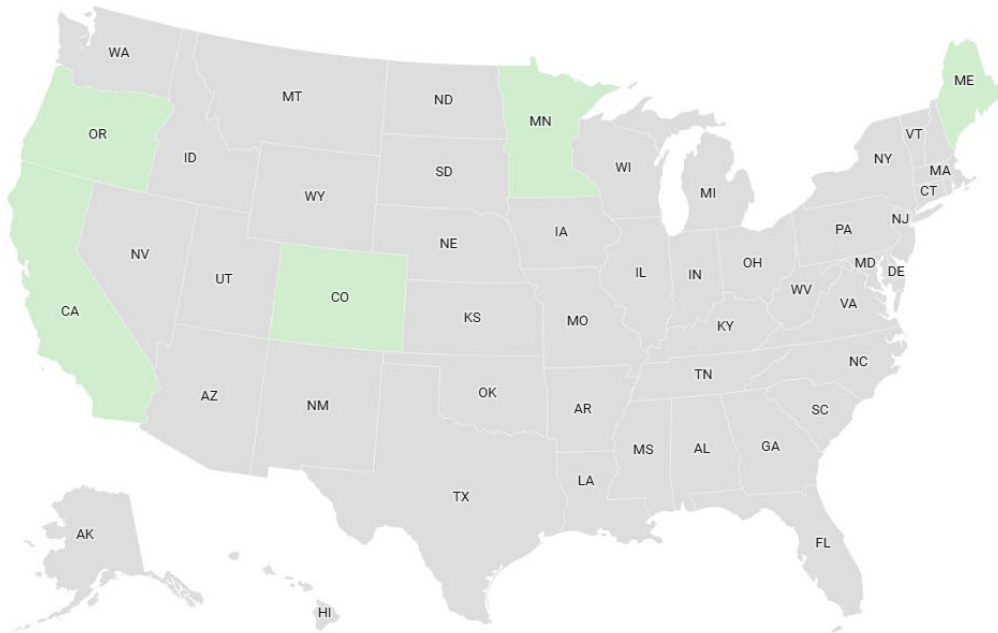
Includes financial responsibility;
sometimes day-to-day management

Providing **incentives**

to design for the environment



State Packaging EPR Laws



In 2024, nine states – from New York to Tennessee – have introduced legislation for packaging EPR, with the Minnesota governor recently signing an EPR bill

Paper and Plastic Packaging EPR Laws

Maine – An Act to Support & Improve Municipal Recycling Programs & Save Taxpayer Money (2021 - First in Nation)

- Establishes a stewardship organization (SO) for packaging. The SO will be selected by the state and costs to fund the SO and Department oversight will be funded by producer payments.
- Producer defined as a “producer of packaging such as Amazon, Walmart, Procter & Gamble, and other brand owners”
- Producers will pay into a fund based on the amount and the recyclability of packaging associated with their products (specific rulemaking started in 2022, Summer 2024 – anticipated adoption of routine/technical rules)
- Fund will be used to reimburse municipalities for eligible recycling and waste management costs, make investments in recycling infrastructure, and help Maine citizens understand how to recycle
- Producer payments will begin in 2026 and the first payments to municipalities will begin in 2027

Paper and Plastic Packaging EPR Laws

Oregon – Plastic Pollution and Recycling Modernization Act (January 2022)

- Producer defined as a “producers of packaging, food serviceware items, and paper products”
- Creates a producer responsibility organization that will provide drop off and mobile collection of materials not suitable for curbside collection (e.g. small rigid plastics, such as pill bottles and lids)
- The bill establishes new requirements for MRFs and calls for creting a “statewide collection list” meant to standardize the types of material accepted
- Established the “Truth in Labeling” task force that submitted the recommendations we discussed earlier
- Producers submitted plan to the state by March 31, 2024, set to begin July 1, 2025
- Statewide recycling goals for plastic packaging and food serviceware 35% by 2028 (enforceable), 50% by 2040 (enforceable) and 70% by 2050 (not enforceable)

Paper and Plastic Packaging EPR Laws

Colorado – Producer Responsibility Program for Recycling (2022)

- Mandates that companies that sell consumer-facing packaging and some printed paper join a producer responsibility organization (PRO), with exceptions for smaller business and highly regulated packaging, such as medicines. The PRO would then, through dues, fund and manage a statewide recycling system.
- Covered producers must sell \$5 million or more in the state per year or use 1 ton or more of packaging in the state
- Producer fees into the PRO are based on the amount and type of packaging and paper used.
- Fees will go toward funding new or improved statewide recycling services
- Bill includes unique provisions for processing compostable packaging
- Needs assessment currently underway,, producers must participate in the PRO by July 1, 2025.

California – Package Pollution Prevention & Packaging Producer Responsibility Act (2022)

- Shifts the plastic pollution burden from consumers to producers by raising \$5 billion from industry members over 10 years.
This will:
 - Cut plastic pollution and
 - Support disadvantaged, low-income, and rural communities hurt most by the impacts of plastic waste.
- Producers of single-use plastic packaging and plastic single-use foodservice ware who do business in California must join a producer responsibility organization (PRO) by Jan. 1, 2024 to continue selling, importing, or distributing these materials in that state.

By 2032 California will.....

Cut By



25%

Single-use plastic:

- Packaging and
- Food ware

Recycle



65%

Of single-use plastic:

- Packaging and
- Food ware

Ensure



100%

Of single-use:

- Packaging
- Plastic food ware

Is recyclable or compostable

California Law Continued

Here are some primary targets:

Jan. 1, 2025:

- Expanded polystyrene foam foodservice ware must hit 25 percent recycling rate or it will be banned from sale.

Jan. 1, 2027:

- PRO shall source reduce to less than 10 percent of plastic covered materials. (e.g., refilling, concentrating materials, rightsizing).

Jan. 1, 2028:

- 30 percent of plastic packaging must be recycled.

Jan 1, 2030:

- 40 percent of plastic packaging must be recycled.
- 20 percent must be source reduced, with no less than 4 percent being reused or refilled.

Jan 1, 2032:

- 65 percent of plastic packaging must be recycled.
- All packaging must be recyclable or compostable [with California Department of Resources Recycling (CalRecycle) determining what is deemed recyclable or compostable]
- Plastic packaging sold must be reduced by 25 percent.

Minnesota – Package Waste & Cost Reduction Act (2024)

- Create a Producer Responsibility Organization (PRO):** The PRO is comprised of the largest producers of packaging sold in Minnesota. Members of the PRO will be required to pay fees based on the type and amount of packaging they are selling into the state.
- Utilize Producer Fees:** These fees will be used to pay for most of the recycling cost for residents, schools, most non-profits, and government entities. The fees will also support additional increased access to recycling, composting and reuse services and conduct regular needs assessments.
- Establish Collection Lists:** The program also requires the agency to create two collection lists – a curbside recyclability list and an alternative collection list. If a material is not on either list and is not reusable or compostable then it cannot be sold into the state after 2032.
- Mandate Packaging Redesign:** Producers will be required to redesign their packaging to be reusable, recyclable, or compostable by 2032.
- Set Specific Targets:** Producers will be required to meet specific targets for waste reduction, reuse, recycling, and postconsumer recycled content. These targets, set by the state and based on findings in the needs assessment, will be updated every five years.

How did states get to packaging EPR laws?

Often started with a single item for EPR to pave the way for other items

For Example California:

- Ag Pesticide Containers (2008)
- Recalled Products (2008)
- Mercury Thermostats (2008)
- Paint (2010)
- Carpet (2010)
- Mattresses (2013)
- Medications & Sharps (2018)
- Loose batteries (2022)
- Packaging (2022)
- Mercury lighting (2022)



EPR study bills were passed in Maryland (SB 222 in 2023) and Illinois (Public Act 103-0383). Effort to establish detailed data for setting policy outcomes. These needs assessments should be complete by the end of this year for Maryland and by 2026 for Illinois




So who's doing some of these needs assessments?

The Circular Action Alliance is a brand-led producer responsibility organization. The group is comprised of major brands and retailers. CAA is also the single PRO in Colorado and California, serves on Maryland's State Producer Responsibility Advisory Council and has said it aims to be a part of Oregon's EPR program, which allows for multiple PROs. CAA is comprised of 18 major companies, including the Coca-Cola Co., Keurig Dr Pepper, General Mills, Procter & Gamble, Nestlé and Unilever

In Summary below are some of the recent policy mechanisms that states have used to gain a more circular economy.

Things to consider:

- Sale Ban of toxic or nuisance materials (Hg lightbulbs, single use plastic bags, Styrofoam containers, PFAS items, material that often ends up as litter)
- Landfill Ban
- Truth in Labeling (Define what gets  symbol)
- Producer-Pays EPR to manage or pay for the end of life of a product

Circular Economy in Action: Pathways towards sustainability through circularity



Justin Stockdale



Laurie Johnson


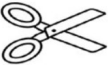


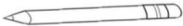


Megan Kaplon



Based on what you've heard so far, including Justin, Laurie and Megan's presentations, what policy would you connect to the products/materials you initially identified to create a more circular economy in NM?

Draw a line connecting the picture with the matching word.

	pencil
	ruler
	backpack
	scissors
	paper

twistynoodle.com

