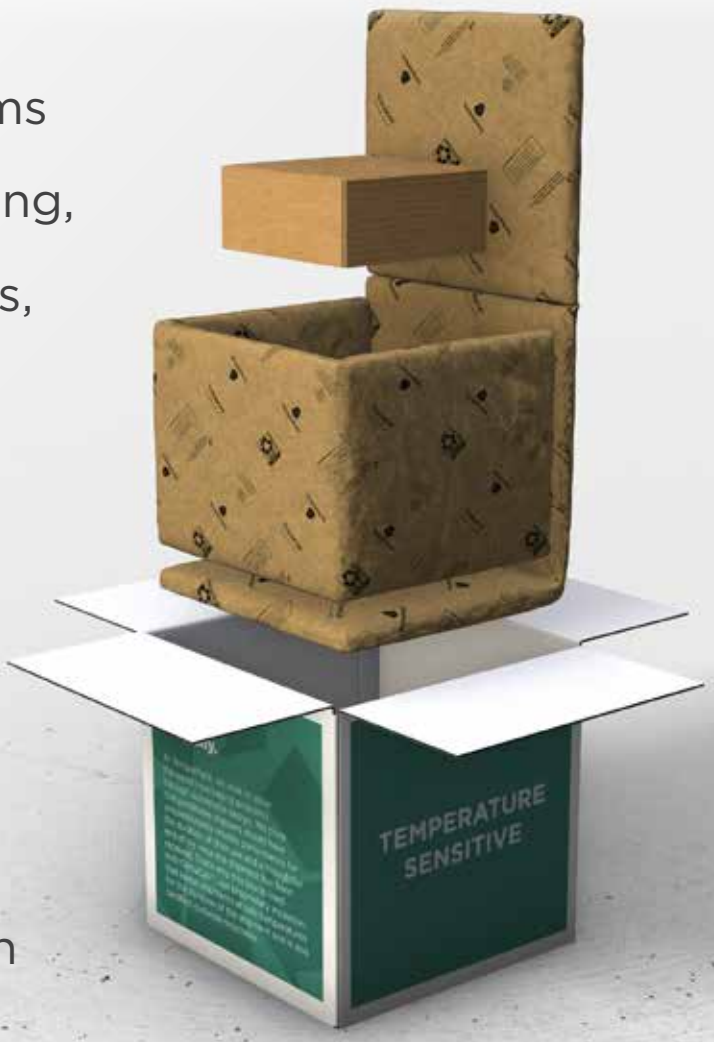
TemperPack

Navigating Extended Producer Responsibility (EPR)

March 2025

For more than a decade, TemperPack has focused on developing smarter packaging to displace legacy plastics. We develop advanced biobased materials, designed to be easily recyclable or compostable, that allow clients to protect fragile and temperature-sensitive products, without unnecessary plastic waste.

But packaging waste remains a significant challenge. The systems meant to manage it aren't working, leaving companies, governments, and consumers to deal with the consequences. EPR offers a way forward. This document explores the challenges of traditional waste management, the promise of EPR, and how businesses can adapt to thrive in this new era of accountability.



Why the current system isn't working

The bottom line? Traditional waste management isn't keeping up. It's time for a systemic change, and EPR offers a clear path forward.

Since the 1970s, municipal recycling programs have been the cornerstone of waste management. But today, these systems are showing their limits:

- **Low recycling rates:** The EPA reports that despite goals for growth, U.S. recycling rates have stagnated around 32-35% due to limited infrastructure access for 20-25% of Americans. Communication challenges like "wishcycling" result in contamination rates exceeding 25%, making processing more difficult.
- **Outdated infrastructure:** Facilities designed decades ago can't keep up with modern waste streams, like bioplastics and multi-layer packaging.
- **Reliance on exports:** For years, municipalities shipped recyclables to countries with lower processing costs.

These issues aren't just operational — they're financial:

- **Rising costs:** Collecting, sorting, and processing waste have become more expensive due to inflation, labor shortages, and increasing technological demands.
- **Shrinking revenue:** The market for recycled materials is volatile, often failing to cover program costs.
- **Budget shortfalls**: Municipalities rely on taxes and user fees to fund programs, but these often fall short of rising expenses.

Environmental impacts add another layer of urgency:

- **Landfill limits:** Many regions are running out of space, especially in densely populated areas.
- **Lost resources**: Materials buried or incinerated represent wasted resources and energy.
- **Climate change:** Methane from landfills and CO_2 from incineration contribute significantly to global warming.

What is EPR?

EPR shifts the burden of waste management from local governments to the companies that create the waste.

EPR shifts the burden of waste management from local governments to the companies that create the waste. Under EPR laws, companies that produce packaging and other materials are responsible for managing their products at the end of their lifecycle.

The transition to EPR represents more than just a policy shift—it's a fundamental reimagining of how we approach product lifecycles and waste management. By creating direct financial and strategic incentives for manufacturers to think beyond production, EPR has the potential to drive systemic change. As companies are increasingly held accountable for the entire journey of their products—from initial design to final disposal—we can expect a cascade of innovations that prioritize sustainability, reduce environmental impact, and create more resilient economic models.

The success of EPR will ultimately depend on continued collaboration, ongoing policy refinement, and a shared commitment to transforming our current linear consumption patterns into a regenerative, circular approach.

Here's how it works:

- Producers pay for waste management. Companies fund collection, recycling, and disposal programs for their products. Fees are often based on the environmental impact of their materials, incentivizing sustainable design.
- Incentives for better design. EPR policies encourage eco-friendly packaging by making it cheaper for companies to use recyclable, reusable, or compostable materials.
- Building a circular economy. EPR promotes systems where materials are reused instead of discarded. This reduces waste and conserves resources, creating a more sustainable economy.

The global state of EPR

EPR isn't a new concept. Many countries have implemented it with significant success.

European Union

The EU is a leader in EPR, with comprehensive frameworks like the Packaging and Packaging Waste Directive.

- Recycling targets: Producers must meet strict recycling goals for various materials.
- Eco-modulation fees: Countries like France charge producers based on their packaging's recyclability, rewarding eco-friendly design.

Canada

Canada's EPR programs focus on electronics and other waste streams, with an emphasis on convenience for consumers.

- Recycling standards: Provinces enforce strict rules for hazardous materials and material recovery.
- Accessibility: Programs include widespread drop-off locations and take-back schemes.

United States

EPR is gaining traction in the U.S., with existing state-level programs addressing specific waste streams like tires, electronics, paint, and batteries. Packaging laws are also emerging.

EPR isn't a new concept. Many countries have implemented it with significant success.

"A focus on measures that finance collection has the greatest potential to reduce the financing gap. EPR, implemented through Packaging Material Fees, can have the highest potential in reducing this gap." — Ocean Conservancy

Why EPR matters

EPR offers clear benefits for governments, businesses, and the planet.

Environmental Impact

EPR reduces waste, conserves resources, and mitigates climate change.

- **Higher recycling rates:** Regions with EPR programs divert more materials from landfills.
- **Less pollution:** Methane emissions from landfills and CO_2 emissions from incineration decrease as more waste is recycled.
- **Resource conservation:** Recovering materials reduces the need for raw resources, saving energy and cutting down on environmental destruction.

Economic Benefits

EPR alleviates the financial burden on municipalities, freeing up resources for other critical services.

- **Cost savings for governments:** Producers take on the costs of waste management, reducing the strain on public budgets.
- **New markets:** EPR programs often include funding for recycling infrastructure and markets for recycled materials.

Business opportunities

For companies, EPR isn't just about compliance—it's a chance to lead.

- **Incentives for innovation:** Eco-modulation fees reward companies for designing sustainable packaging.
- **Stronger brand perception:** Consumers increasingly prioritize sustainability. EPR compliance shows customers that your company is committed to reducing its environmental impact.

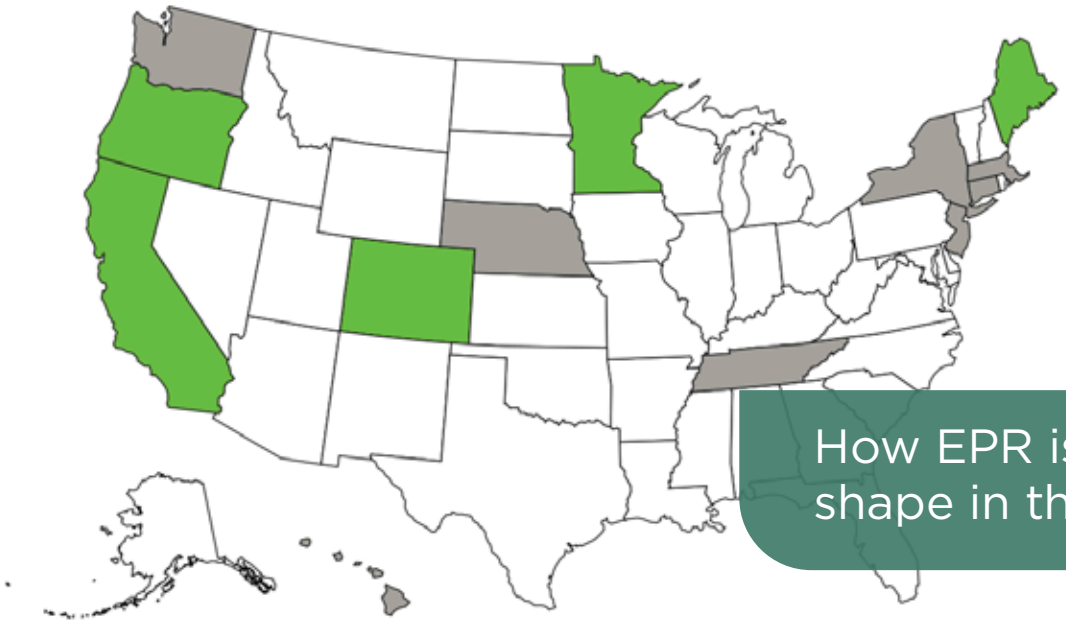
Role of Producer Supply Data to Calculate Fee Rates & Budget Fees

All Producers

Program Costs (Numerator) ÷ All Producer Supply lbs (Full Year) (Denominator) = PRO Fee Rates ($/lb)

Individual Producers

Individual Producer Full Year Supply (lbs.) × PRO Fee Rates ($/lb) = Producer Fee Budget (Program Period)



How EPR is taking shape in the U.S.

Although EPR for packaging is still in its early stages in the U.S., several states are leading the way.

Oregon - The Plastic Pollution and Recycling Modernization Act (SB 582) establishes an EPR system for packaging, paper products, and food service ware. The law requires producers to join CAA and pay fees based on the recyclability and environmental impact of their materials. These funds are used to improve recycling infrastructure, expand access to underserved communities, and ensure uniform statewide recycling standards. Learn more.

- March 2025: Producers to register and report packaging 2024 data to CAA
- June 2025: CAA target date to release fee schedule data year 2024
- July 1, 2025: CAA producer fee obligations begin and statutory program implementation
- October 2025: CAA target date to release fee schedule for data year 2025

California - The Plastic Pollution Prevention and Packaging Producer Responsibility Act (SB 54) establishes one of the most ambitious EPR laws in the U.S. It requires 65% of single-use packaging is recyclable or compostable by 2032, mandates a 25% reduction in plastic packaging use the same year. Learn more.

- April 1, 2025: CAA's deadline for obligated producers to register
- August 2025: Producers to report 1st 6 months of 2025 packaging data to CAA
- January 2025: Producers to report 12 months of 2025 packaging data to CAA

Maine – On July 12, 2021, Maine was the first state in the nation to pass an EPR for Packaging law (LD1541). It requires producers of consumer packaging to help fund the recycling and disposal of their materials by paying fees based on the weight and recyclability of their packaging materials.

- Spring/Summer 2025: Estimated deadline for final adoption of rules

Minnesota - Minnesota's Packaging Waste and Cost Reduction Act, passed in 2024, requires producers to fund the recycling and proper disposal of their products through fees managed by a Producer Responsibility Organization (PRO). By 2032, all packaging must be reusable, recyclable or compostable. By 2033, 15% of materials source reduced, 10% transitioned to a reuse system, 65% recycled or composted, and 10% minimum postconsumer recycled content per item and 30% overall.

- January 1, 2025: PRO selected

Colorado - Colorado's EPR law for packaging, established by House Bill 22-1355, mandates that producers of packaging and printed paper fund a statewide recycling system. Managed by the Circular Action Alliance (CAA), the program aims to improve recycling rates, expand access to recycling services, and reduce landfill waste across the state. Learn more.

- July 2025: Producers no longer allowed to sell products if not in the program
- August 2025: Producers to report 1st 6 months of 2025 packaging data to CAA
- October 2025: CAA target date to release fee schedule

Legislation changes frequently. Follow CircularActionAlliance.org to keep up to date.

"To stop packaging pollution, we need a circular economy where we eliminate what we don't need, innovate towards new packaging, products and business models, and circulate all the packaging we do use, keeping it in the economy and out of the environment."

– Ellen MacArthur Foundation statement, 21 October 2022

Challenges and opportunities

Adapting to EPR requires significant effort from businesses, but the long-term benefits outweigh the challenges.

Challenges

- **Complex regulations:** Different states have different requirements, making compliance tricky for companies operating across multiple regions.
- **Cost increases:** EPR fees may raise initial costs, especially for companies using hard-to-recycle materials.
- **Infrastructure gaps:** In many areas, recycling systems need significant upgrades to handle increased demand.

Opportunities

- **Streamlined compliance:** Partnering with organizations like PROs simplifies compliance.
- **Eco-modulation savings:** Companies that invest in sustainable design benefit from reduced fees.
- **Market differentiation:** Embracing EPR positions your company as an environmental leader, attracting eco-conscious customers and partners.

At TemperPack, we understand the challenges of adapting to EPR, and we're here to help.

Building a circular economy

EPR is about more than managing waste—it's about rethinking how we produce and consume. By embracing circular economy principles, companies can reduce their environmental footprint while unlocking new opportunities for growth.

What is a circular economy?

A circular economy keeps materials in use, minimizing waste and conserving resources. It's a shift from the "take-make-dispose" model to one where materials are reused, recycled, or composted.

How EPR fits

EPR aligns with circular economy goals by:

- Encouraging the use of recyclable and reusable materials.
- Funding systems that keep materials out of landfills.
- Creating incentives for sustainable design.

By participating in EPR programs, companies contribute to a future where waste is minimized, and resources are conserved.

How TemperPack helps you navigate EPR

At TemperPack, we understand the challenges of adapting to EPR, and we're here to help.

For existing customers

EPR regulations can feel like a maze, with varying rules and tight deadlines. That's where we come in.

- Compliance reporting: We provide the data you need to meet your reporting requirements, taking the stress out of compliance.
- Expert support: Our team stays up to date on EPR regulations so you don't have to.

For new customers

Looking to reduce your reliance on plastic? Our sustainable packaging solutions are designed to align with EPR requirements, simplify compliance, and are rewarded in the eco-modulation structure.

- Recyclable and compostable options: Our products meet stringent recycling and composting standards.
- Tailored solutions: We work with you to find the right packaging for your needs, balancing performance and sustainability.

The path forward

EPR isn't just a regulatory requirement—it's an opportunity to lead. By taking responsibility for your products' entire lifecycle, you're building a more sustainable future for your business and the planet.

What should you do next?

1) **Register as a producer with the Circular Action Alliance (circularaction.org).** They are the PRO for paper and packaging in the United States. They have producer onboarding, resources, compliance updates, and everything you need to know to get started.
2) **Stay in touch.** We're here to be your guide to ensure you are recognized and rewarded for using TemperPack solutions.

Let's turn today's challenges into tomorrow's solutions.