



WHITEPAPER

Trends in Packaging Extended Producer Responsibility in the United States and Canada

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Executive summary

Extended producer responsibility (EPR) is an economic model designed to make producers accountable for the entire life cycle of their products, from design to disposal, with a strong emphasis on environmental sustainability. EPR legislation is sweeping across the United States (U.S.) and has been established in Canada for over 20 years.

Different types of producers, which include manufacturers, brand owners, importers, distributors and retailers, have specific obligations, including reporting data and paying fees to ensure the collection and recycling of their products. This white paper focuses on packaging EPR regulations that typically cover materials (e.g., plastic, paper, cardboard, glass and metal) used in product packaging as well as packaging used for transport. However, EPR programs cover a wide variety of materials including textiles, automotive products, pharmaceuticals and electronics.

This white paper equips producers with the knowledge and strategies to navigate the complexities of packaging EPR in Canada and the U.S., as well as highlights the substantial risks associated with noncompliance.





What is EPR?

EPR is a policy that holds producers accountable for the entire life cycle of their products, from design to end-of-life, including packaging. EPR is seen as a powerful mechanism to reduce packaging waste, limit harmful substances from entering the environment, increase recycling and achieve a circular economy — all of which are supported by producer funds/fees. EPR programs can be mandatory, voluntary or negotiated.¹ The current trend shows an increase in mandatory EPR legislation across multiple jurisdictions. These reporting requirements apply throughout the supply chain, affecting products at all life cycle stages.

The structure and amount of fees can vary by jurisdiction and the type of material. Depending on how EPR systems are set up, producers may work with and pay fees to stewardship organizations (SOs) or producer responsibility organization (PROs). Paying the required fees is crucial for regulatory compliance and supports the overall goals of EPR programs (i.e., producer-funded initiatives). These fees fund the infrastructure needed to manage waste effectively and promote environmental sustainability.

Some regions may use flat or modulated fees, while others implement eco-modulated fees to incentivize producers to design more sustainable products. Within Canada, EPR programs typically establish fees based on cost of collection and recycling minus the revenue attached to the value of materials on commodity markets. Generally, within the various fee structures, materials that are more difficult to recycle will have higher fees associated with them to help transition toward a more circular economy.

EPR producers

While the definition of a producer may vary somewhat between regulations, producers are generally divided into six main categories:

- Manufacturers
- Brand owners
- Brand licensees
- Importers
- Distributors
- Retailers

Further to defining a producer, it is important to understand who the obligated producer is under an EPR scheme. In Canada and the U.S., the definition of a “producer” varies depending on the jurisdiction and program specific legislation. One factor to consider is that some definitions can exclude companies that supply into a province but do not have establishments in that jurisdiction. For example, online retailers can be difficult to capture within definitions, but they contribute packaging into a system. Similarly, a major brand can have regional offices/distribution facilities that can each cover multiple provinces/territories or states, which means that they may not have any direct legal obligations to a jurisdiction where they are located.

As there are multiple potential stakeholders in a product’s supply chain, EPR laws set out a hierarchy of producer responsibility (or producer hierarchy) within a regulation, which defines who the obligated producer is. The obligated producer is responsible for specific tasks, such as reporting packaging data, fee payment, etc.

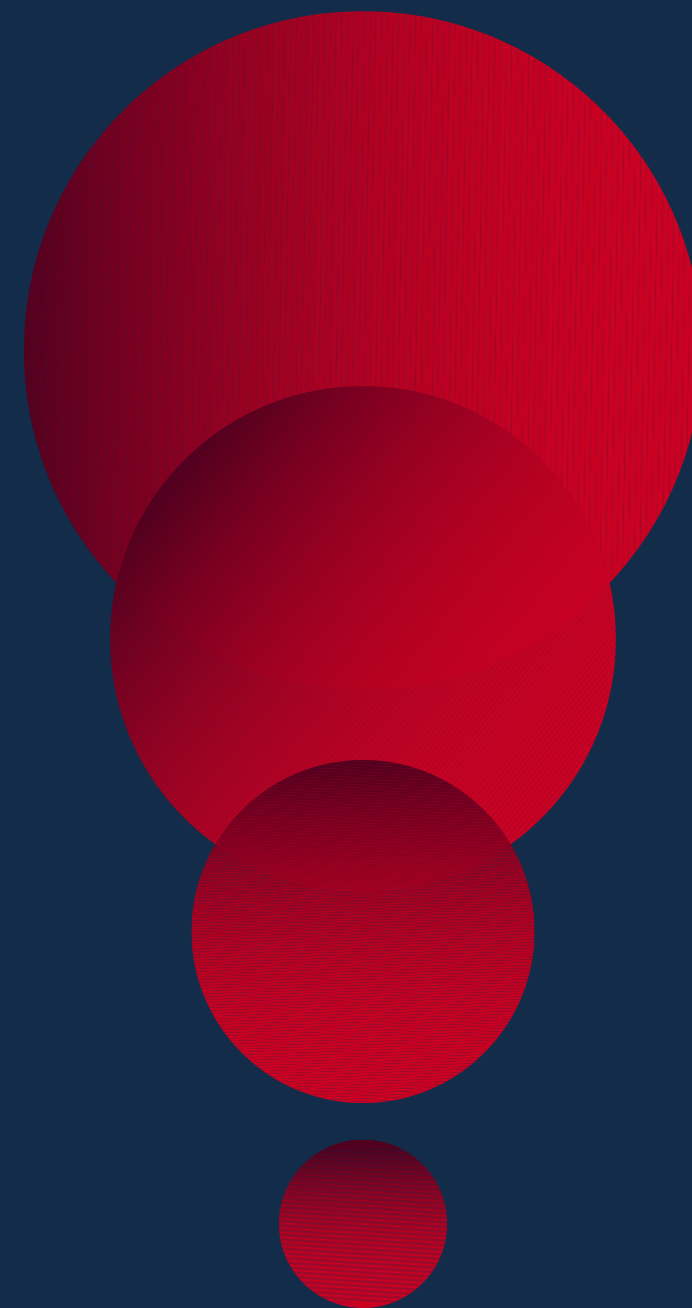
For example, in the province of Ontario, Canada, the government has taken the following approach for recent producer responsibility regulations, including batteries and electronics, packaging and printed paper (PPP), and municipal hazardous and special waste (MHSW) regulations.

Obligated producer hierarchy in Ontario:²

1. Brand holder — resident in Canada
2. First importer — resident in Ontario
3. Retailer

One key aspect to note is that the first obligated producer should be a resident brand holder in the relevant country, e.g., Canada, even if it is a provincial regulation. This can help address the problem where companies may have regional offices in other provinces/territories and states.

Under most EPR legislation in both Canada and the U.S., producers are required to belong to a producer responsibility organization (PRO). PROs are entities that help producers comply with EPR requirements by administering EPR programs.³ PROs are responsible for ensuring compliance with the regulation related to the collection, recycling and disposal of end-of-life products on behalf of producers. In addition to regulatory compliance obligations, PROs can provide efficiencies and economies of scale and encourage innovation in product and packaging design to improve recyclability and sustainability.



Risks of noncompliance

With the trend of EPR legislation being passed in multiple jurisdictions, ensuring compliance is essential for producers involved in any part of a product's life cycle. Noncompliance may result in several different outcomes to producers, including but not limited to:



Fines and penalties

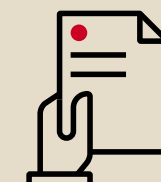
Noncompliance with EPR regulations may result in significant fines and penalties. These vary by jurisdiction but often include monetary fines, legal actions and restrictions on business operations. There are penalties for late or incomplete reporting, fees for under-reporting or misreporting, administrative penalties and interest on late payments.⁴ In Canada, it is common practice that companies determined to be noncompliant are required to back report and pay fees for years missed.

- Example: In June 2024, the Ontario Resource Productivity Recovery Authority (RPRA) issued a penalty of \$340,457 (CAD) to a Canadian mattress company for noncompliance with sections 19 and 69 of the Blue Box Regulation.⁵
- In Oregon and California, the potential fines to producers for noncompliance with EPR laws are up to \$25,000 per day⁶ and \$50,000 per day⁷, respectively.



Negative brand image

A company's brand image can be tarnished if they are found to be noncompliant by the public (e.g., through public announcements on noncompliance, listed on ministry websites, etc.).



Increased risk audit

Incorrect reporting may result in an increased risk of an audit. Audits cost companies both time and money.

Covered (or obligated) materials

Covered or obligated materials are the types of products and packaging, which are subject to EPR regulations. These materials are designated by the regulatory authorities and must be managed according to what is set out by EPR requirements including recycling, disposal and reporting. While there is variation amongst the jurisdictions on what is considered covered materials, there are four common categories of covered materials:



Plastic packaging
(e.g., single-use plastics, plastic bottles, containers and wraps)



Paper and cardboard
(e.g., boxes, cartons and other paper-based packaging)



Glass
(e.g., bottles, jars and other glass containers)



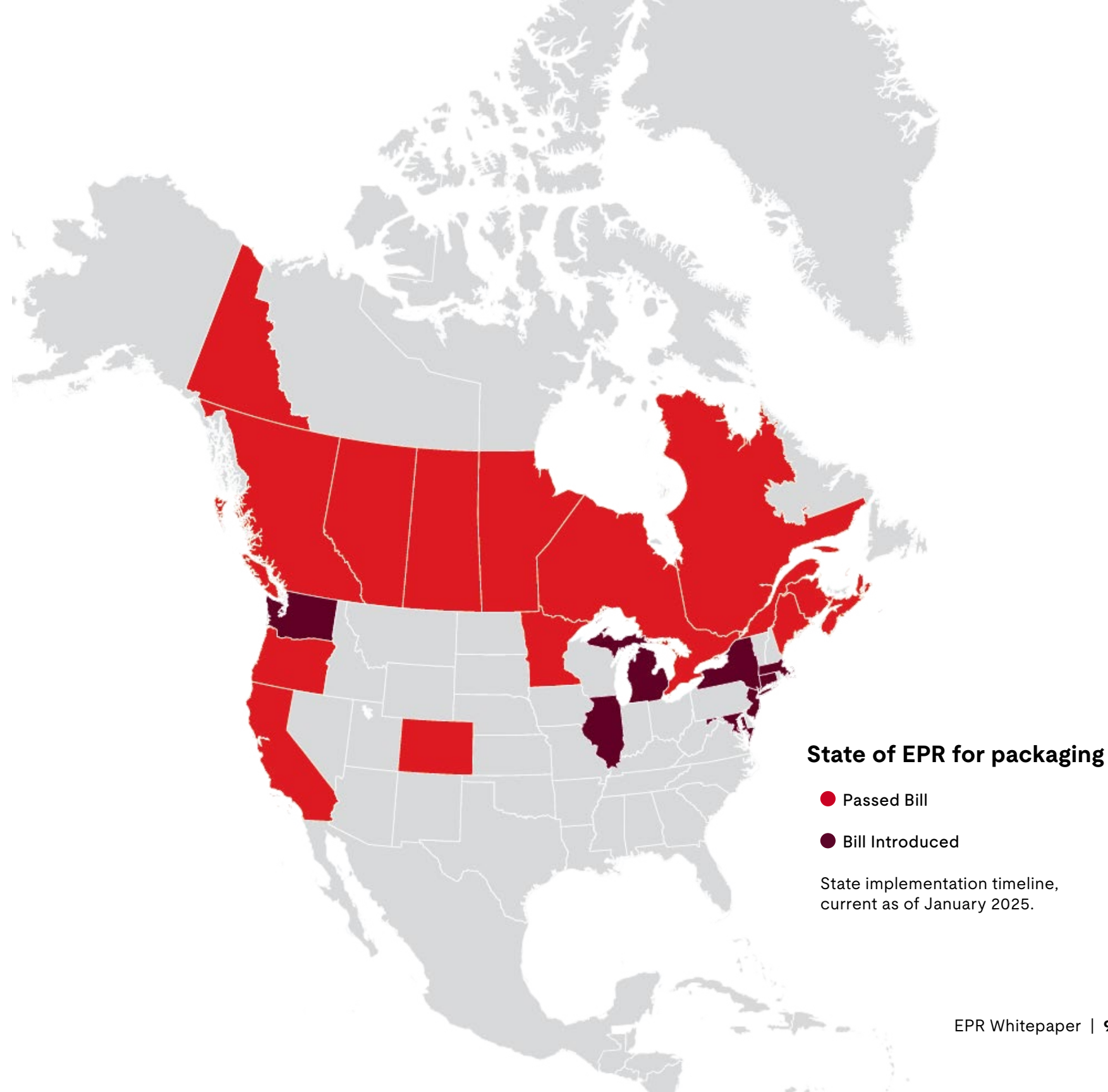
Metal
(e.g., aluminum cans, tin cans and other metal packaging)

It is important to note that within the EPR laws, there are exemptions for certain products (e.g., packaging for infant formula and medical devices is exempt from packaging regulations in Minnesota⁸) or certain small producers (e.g., companies with less than \$5,506,200 million in gross revenue per year or less than one ton of PPP sold in Colorado in the previous year⁹).

These types of exemptions are an example of the nuances that exist within each of the laws. Having a means to track these differences is integral to producers who operate in more than one jurisdiction.

Regulatory landscape in Canada and the U.S.

There is no overarching federal EPR legislation in Canada or the U.S. Instead, legislation is enacted at the provincial/territorial and state levels, respectively. Governing EPR at the provincial/territorial and state levels adds complexity in the Canadian and U.S. markets, as there may be a lack of harmonization between regulations. This is an important consideration for producers that operate across borders, both within and between countries. There are currently no federal EPR laws in Canada or the U.S.



Packaging and printed paper programs

Canada

As of January 2025, nine out of the 13 provinces and territories had EPR regulations, including packaging and printed paper (PPP) programs. Of note, programs in Ontario, Quebec and British Columbia require producers to fund and manage the recycling and disposal of their products so that materials are kept in use for as long as possible.

U.S.

At the state level in the U.S., legislation around EPR is being passed rapidly with more expected every year. Each enacted state law is unique and contains its own nuances, but they are generally based on the common sustainability goals of reducing packaging waste, encouraging sustainable packaging design and shifting the financial responsibility of the waste to the producer.

The Circular Action Alliance (CAA) is the only producer responsibility organization (PRO) approved to implement packaging compliance laws in the U.S. as of the date of this document's publication. The CAA currently operates as the sole PRO in California, Colorado, Minnesota and Maryland. The obligation of the CAA is to implement effective EPR laws for PPP.¹⁰



EPR frameworks and implementation plans

The timeline for implementing EPR regulations can vary significantly depending on the jurisdiction and the specific requirements. Generally, the process includes these five key phases.



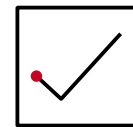
Legislative development

Governments draft and pass EPR legislation, which can take months to years depending on the complexity and stakeholder involvement.



Regulatory framework

Detailed regulations and guidelines are developed to support the legislation, outlining specific requirements for producers.



Producer registration

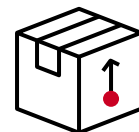
Producers are required to register with relevant authorities or PROs within a specified timeframe.



Compliance deadlines

Producers must meet various compliance deadlines, such as paying fees and reporting the packaging put on the market at a specific time.

PROs are required to submit plans and report on waste management activities.



Ongoing reporting and audits

Producers must regularly report on the packaging put on the market and may be subject to audits to ensure adherence to EPR requirements.

	Oregon	California	Colorado	Maine	Minnesota
Legislative development	Plastic Pollution and Recycling Modernization Act (2021)	Plastic Pollution Prevention and Packaging Producer Responsibility Act (2022)	Producer Responsibility Program for Recycling (2022)	Extended Producer Responsibility (EPR) for Packaging (2021)	Packaging Waste and Cost Reduction Act (2024)
Regulatory framework	The Environmental Quality Commission (EQC) adopted rules to clarify the Act on several topics including but not limited to permitting standards and fees related to commingled recycling facilities, covered product exemptions, etc. ¹¹	Advisory Board appointed CalRecycle has published a list of covered materials			
Producer registration	March 2025 – Producers to have registered	April 1, 2025 – CAA’s deadline for obligated producers to register	October 1, 2024 – Producer registration deadline	May 2026 – Producers must be registered by this date	July 1, 2026 – Deadline for producers to register with a PRO
Compliance deadlines	March 2025 – Producers to report 2024 packaging data to CAA July 1, 2025 – CAA producer fee obligations begin and statutory program implementation	August 2025 – Producers to report first six months of 2023 packaging data to CAA January 2026 – Producers to report 2025 packaging data to CAA	August 2025 – Producers to report first six months of 2024 packaging data to CAA May 2026 – Producers to report 2025 packaging data to CAA	May 2026 – First producer payments are due, and data must be reported to the appointed SO	Every five years, the Minnesota Pollution Control Agency (MPCA) will perform a needs assessment to gather information, e.g., on covered materials, recommended collection methods, etc. ¹²
Ongoing reporting and audits				PRO must conduct a statewide recycling needs assessment every 10 years, disposal audits every 10 years and litter audits twice a year. ¹³	

Nine steps to help producers succeed at EPR compliance

For producers to comply, there are several key steps to take. These steps may take years to fulfill, so start today to help set your organization up for success.

1. Know the regulations

Familiarize yourself with EPR legislation in the jurisdiction(s) in which you operate and outline which programs you are defined as the obligated producer. By doing so, you can start to develop a strategy to meet data management and reporting requirements.

3. Initial assessment

Assess your current packaging materials (precise weight and material type used for every product). This is essential data needed to create the reports that are ultimately submitted to the PRO.

2. Engage the correct stakeholders

Identify and engage the appropriate internal (e.g., legal, compliance and sustainability teams) and external (e.g., consultants, PROs and regulatory bodies) stakeholders. Engaging stakeholders from the start helps promote transparency and accountability for EPR initiatives and puts you in a better position to stay informed about any changes in regulations and best practices.

4. Registration

Register with relevant regulatory authorities, PROs or SOs. Ensure all necessary documentation is prepared and submitted ahead of reporting and fee payment deadlines.

5. Compliance plan development

Develop a detailed compliance plan outlining how your organization will meet EPR requirements. This should include strategies for what data you are going to collect and manage, packaging redesign, waste reduction, and recycling.

8. Reporting

Submit required reports to regulatory authorities, PROs or SOs detailing your compliance activities, packaging materials used and recycling outcomes.

6. Compliance plan implementation

This may involve changes to packaging design, sourcing of materials with higher recycled content, establishing partnerships with recycling facilities and regular internal audits of data and processes. Implementing the plan also means it is time to start collecting data on packaging materials, waste generation and recycling rates to prepare for reporting requirements.

9. Fee payment

Pay any required fees on time, such as annual compliance fees or eco-modulated fees based on the environmental impact of your packaging. Failure to do so may lead to fines and other penalties.

7. Monitoring and adjustment

Monitor the effectiveness of your EPR strategies and make necessary adjustments to improve compliance and efficiency. Continuously seek ways to improve your packaging data, reduce waste and enhance recycling efforts.



The benefits of partnering with UL Solutions and Evnia to empower packaging EPR data collection, reporting and compliance

Recognizing the complexities involved in EPR compliance and the investment required of producers, both UL Solutions and Evnia can help in various ways, including being able to provide data collection and management systems and assist with training and education with the goals of leading to streamlined, efficient reporting processes for companies subject to EPR legislation.

UL Solutions has been at the forefront of helping organizations collect data from their suppliers to enable supply chain transparency to meet regulatory obligations and sustainability goals for leading retailers and organizations for years.

Evnia, a leader in environmental compliance, simplifies the reporting processes for producers and helps companies adhere to the rigorous compliance expectations of environmental standards in Canada and the U.S.

Learn how UL Solutions and Evnia are working together on EPR services.

Glossary of terms

- **Brand image** – The perception of a company or product by consumers, which can be influenced by practices such as sustainability and environmental responsibility.
- **Circular economy** – An economic system aimed at eliminating waste and the continual use of resources through recycling, refurbishing and repurposing materials.
- **Compliance** – Adherence to laws, regulations and standards set by governing bodies to ensure products and practices meet required guidelines.
- **Eco-modulated fees** – Fees that are adjusted based on the environmental impact of a product, such as its recyclability or the percentage of post-consumer recycled content.
- **Economies of scale** – Cost advantages gained by producing large quantities of a product, which can reduce the cost per unit through increased efficiency.
- **Extended producer responsibility (EPR)** – An environmental policy that shifts the responsibility for waste management from taxpayers to producers, covering the entire life cycle of products from design to end-of-life.
- **Post-consumer recycled content (PCR)** – Materials that have been recycled after being used by consumers, which are then used to create new products.
- **Producer responsibility organization (PRO)** – An entity that helps producers comply with EPR requirements by managing the collection, recycling and disposal of end-of-life products on their behalf.
- **Recycling** – The process of converting waste materials into new materials and objects, reducing the need for raw materials and minimizing environmental impact.
- **Regulatory compliance** – The act of adhering to laws and regulations set by governmental bodies to ensure that business practices meet legal standards.
- **Single-Use Plastics (SUPs)** – Disposable plastics that are intended to be used once before being discarded, such as plastic bags, straws and cutlery.
- **Stewardship** – The responsible management and care of resources, often involving the oversight of waste management and recycling programs.
- **Sustainability** – The practice of meeting current needs without compromising the ability of future generations to meet their own needs, often through environmentally friendly practices.
- **Waste Management** – The collection, transportation and disposal of waste materials, including processes for recycling and reducing waste.

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