

# Perspectives.

Issue No. 49

## Breaking Down EPR Policy and Why it Makes a Difference for Recycling System Change

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# Executive Summary

In recent years, extended producer responsibility (EPR) has made a real impact on the U.S. recycling stage, promising improved recycling rates for packaging and printed paper as well as market stability, steady funding for local programs, and enhanced recycling access, education, and infrastructure. This policy approach is not an unattainable vision, but rather an actualized strategy; countries worldwide have relied on EPR programs to manage recyclables for decades and there is data to show that EPR works.

The Recycling Partnership's "Increasing Recycling Rates with EPR Policy" report, released in February 2023 took a deep dive into seven worldwide EPR programs (Belgium, British Columbia, Portugal, Spain, South Korea, the Netherlands, Quebec) to study potential impact of EPR policy in the U.S. The report specifically highlighted potential implications of well-designed EPR in six U.S. states. The data extrapolated that states could expect significant increases in recycling rates for printed paper and packaging materials (like plastic, glass, aluminum, and steel) with the adoption of EPR laws. The Recycling Partnership, a mission-driven NGO committed to advancing a circular economy by building a better recycling system, analyzed the gaps and areas for improvement.

Though U.S. recycling has historically lagged behind other countries, there is a clear path forward toward system change and momentum to get there. It is time to match the size of the solution to the size of the problem; that means leaning in to organized, measured, scalable action that drives system change. Smart policies, like extended producer responsibility, data-driven tools, and blended capital investments to support communities will be critical to this future.

This article delves into **four key takeaways** from the "Increasing Recycling Rates with EPR Policy" report, emphasizing the benefits of improved recycling in the U.S. and abroad. To build the recycling system of the future, we need to invest, support policy to help pay for a better recycling system, make packaging recyclable, ensure all households can recycle, and help the public understand what is recyclable where they live. EPR brings all these pieces together.

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# Key Takeaways

## 1: U.S. recycling rates are substantially lower than recycling rates in jurisdictions with EPR for packaging and printed paper (PPP).

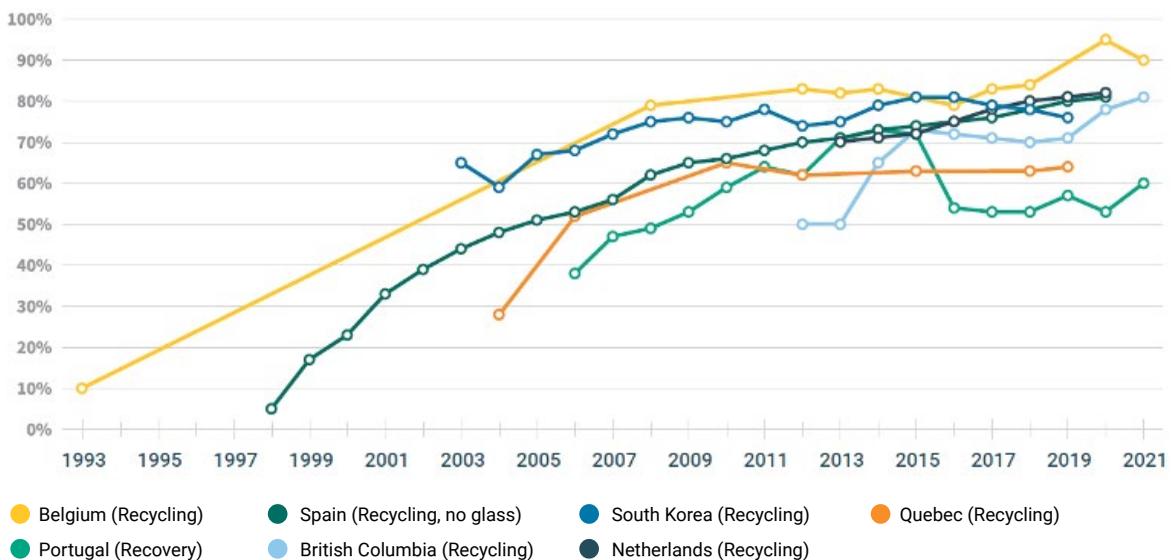
Though the worldwide programs explored in this report have different policy and programmatic details, there are clear results and trends. Report findings indicated that over the years, EPR policy drove the collection and recycling of target materials to more than 75% in British Columbia, Belgium, Spain, South Korea, and the Netherlands, with Portugal and Quebec at over 60%.<sup>1</sup> Figure 1 in the report’s executive summary shows a comparison of the countries’ recycling rates before EPR was implemented and rates with EPR programs.

	Pre-EPR	With EPR
British Columbia	50 - 57%	81%
Belgium	10%	89.8%
Spain	4.8%	80.7%
Netherlands	70%	82%
South Korea	64%	78%
Quebec	28%	64%
Portugal	38%	60.4%

“EPR Increases Recycling Rates in Adopting Areas”

Across international jurisdictions studied, the levels of recycling rate improvement and sustained performance are notable.

### EPR for packaging recycling rates across international jurisdictions



“EPR Increases Recycling Rates in Adopting Areas”

1 Executive Summary Increasing Recycling Rates with EPR Policy, page 2

As an example, Belgium’s EPR program helped the country reach a 95% recycling rate in 2020, despite global recycling challenges,<sup>1</sup> before fluctuating to 90% in 2021. This program has been in development since the 1990s, starting with the enactment of EPR legislation in 1994 and program operations kicking off in 1997. Recycling rates are good indicators that the system is working well; from the awareness of tossing an item in a recycling bin to the material end markets. In Figure 3 in the report, the snapshot of Belgium’s recycling rates also touches on plastic recycling, a historically challenging endeavor in the U.S. As described, the plastic recycling rates improved from 37.6% in 2012 to 52% in 2021 as the EPR program matured.

**Figure 3. Residential packaging recycling rate in Belgium**

Material	2012	2021
Total Packaging Recycling Rate	82.9%	89.8%
Plastic Recycling Rate	37.6%	52%

**“Plastic and Overall Recycling Rates Increase in Belgium as EPR Grows”**

For another international highlight, Spain’s recycling rate pre-EPR hovered at 4.8%; with EPR, the recycling rate climbed to more than 80%. This program also was enacted via law in 1994 and began operations in 1997. In Figure 4, it is possible to see material-specific recycling rate improvements based on available data. This data demonstrates how all materials can stand to benefit from EPR.

**Figure 4. Packaging material recycling rates in Spain**

Material	1998	2002	2018	2020
Total Packaging Recycling Rate (no glass)	4.8% <sup>2</sup>	38.5%	78.8%	80.7%
Glass Recycling Rate (ECOVIDRIO)	-	-	76.5%	-
Plastic Container Recycling Rate (ECOEMBES)	-	17.0%	75.8%	-
Paper/Cardboard Recycling Rate (ECOEMBES)	-	52.7%	80.0%	-
Metal Recycling Rate (ECOEMBES)	-	45.0%	85.4%	-

**“Multiple Materials see Increased Recycling Rates in Spain After EPR Implementation”**

The success of these programs relies on well-designed EPR policy created by legislation that establishes rules, oversight, and targets. A key principle of EPR is that producers (companies making the products) are required to fund recycling collection and programming through fees. The EPR fees producers must pay can incentivize companies to make packaging recyclable and use recycled content, improving the system overall. While the international EPR programs studied have various specifications, these tenets are key themes throughout programming.

**2: The analysis of individual states in this study strongly indicates all U.S. states could expect an increase in their recycling rates for PPP with the implementation of an EPR law.**

The research then took the learnings abroad and applied them in the U.S. to determine estimates around the proposed benefits of EPR. This study looked specifically at six states – Colorado, Connecticut, Florida, Maryland, Washington, and Wisconsin. Each state was chosen due to the availability of key data and geographic diversity.<sup>3</sup> As seen in “Packaging and Paper Recycling Rates for Studied U.S. States”, each has a different recycling rate. Each state also boasts differing waste policies, which impact the recycling system. For instance, Colorado enacted an EPR law in 2022, while Maryland has county-level recycling requirements. Additionally, Maryland recently passed a law obligating a statewide needs assessment, which will further highlight recycling performance gaps and opportunities for the state.

**Figure 5. Comparison of U.S. state recycling rates for packaging and paper.**

State	Data Year	Recycling Rate
Washington	2021	52%
Connecticut	2019	50%
Maryland	2020	31%
Wisconsin	2021	34%
Colorado	2021	21%
Florida	2021	17%

**“Packaging and Paper Recycling Rates for Studied U.S. States”**

Looking at one state in particular, Connecticut, it’s possible to see the nuances of recycling and the impacts policy has on the effectiveness of the system. Connecticut’s overall recycling rate is 50%. In terms of policy and practice, there is a statewide mandated list of materials that haulers and municipalities must collect

1 Executive Summary Increasing Recycling Rates with EPR Policy, page 2

2 “Increasing Recycling Rates with EPR Policy” Report, page 15

3 “Increasing Recycling Rates with EPR Policy” Report, page 15



Photo: © The Recycling Partnership

for recycling. There’s also a deposit return system for certain beverage containers to be returned for recycling. Residents of single-family homes and multifamily homes, like apartments, have high access to recycling (The Recycling Partnership estimates that Connecticut’s combined access rate is 93%), but multifamily homes that reside outside a mandatory multifamily collection ordinance still face recycling gaps.<sup>4</sup> Even with these practices in place, improving recycling rates is still highly feasible. This is where EPR can be invaluable.

See the methodology described below to discern the EPR program benefit estimates, represented as well in this graph:

*“Using data from existing EPR programs, The Recycling Partnership calculated the potential increase in U.S. state recycling rates with well-designed EPR policies. Colorado – which has recently adopted an EPR law for packaging and paper – could see recycling rates increase by as many as 48 percentage points. Although The Recycling Partnership was able to estimate Florida’s current recycling rate, Florida is excluded from the outcomes analysis due to limitations in the state’s base data that do not allow for a confident projection of benefits from possible EPR implementation.”<sup>5</sup>*

State	Recent Recycling Rate	With EPR
Washington	52%	75%
Connecticut	50%	74%
Wisconsin	31%	66%
Maryland	34%	70%
Colorado	21%	70%
Florida	17%	N/A

**“Projected Recycling Rate Increases for Studied U.S. States After EPR Implementation”**

**3: EPR can help ensure universal recycling access, high participation rates, and optimal participant capture behavior, as well as better infrastructure, consistent education, and stable markets.**

So, how can smart, well-designed EPR programs transform communities? EPR helps ensure residents know what and how to recycle, supports enhanced infrastructure for facilities and packaging innovation, and stabilizes markets by providing a steady flow of recycled content to be used and reused.

Recycling Partnership data estimates that 40% of U.S. households are unable to recycle as easily as throwing something in the trash. That affects tens of millions of people. States approach this issue in different ways, sometimes passing policies to require universal access to recycling, but participation in recycling may still be low – that’s the act of actually tossing something in a recycling bin. In fact, the “Increasing Recycling Rates with EPR Policy” report states this stark fact:

**“Recycling Partnership data estimates only 72% of households participate in recycling, and participants only recycle 64% of the recyclable materials. The combination of limitations to recycling access and optimum recycling behavior leads to a U.S. single-family recycling rate of 32%. If multifamily homes are included, the recycling rate would certainly be lower.”<sup>6</sup>**

4 “Increasing Recycling Rates with EPR Policy” Report, page 17-18

5 Executive Summary, “Increasing Recycling Rates with EPR Policy,” page 3

6 “Increasing Recycling Rates with EPR Policy” Report, page 5



Photo: © The Recycling Partnership

Presently, local governments and taxpayers bear the operational and financial responsibility for the recycling and disposal of packaging and printed paper.<sup>7</sup> As a result, programs can be negatively impacted through funding cuts or unstable commodity markets, among other issues. EPR provides the needed funding for local programs to improve access and provide education to residents on how to recycle where they live.

At the same time, producers are incentivized through EPR fees to invest in collection, sorting, and end-market infrastructure to meet recycling standards.<sup>8</sup> This investment can have ripple effects throughout the entire system, improving both quality recyclable goods and processing technologies.

Finally, EPR addresses the commodity market piece by providing stability despite the potential of market downturns. For instance, during the volatility of China's National Sword policy in 2018-2020, recycling rates in EPR jurisdictions continued to improve while many U.S. programs saw moderate to significant drops in recycling rates.<sup>9</sup> To quote the report:

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“While EPR does not directly improve material value, it provides base system funding that shields recycling programs from market downturns. Whereas in the current U.S. recycling system, low material values might lead the local government to stop recycling or a private materials recovery facility (MRF) to stop accepting certain materials, EPR requires producers to meet recycling performance goals regardless of material value and short-term market fluctuations.”<sup>10</sup>

All these factors influenced by EPR help to increase recycling rates.

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7 Executive Summary, “Increasing Recycling Rates with EPR Policy,” page 1

8 “Increasing Recycling Rates with EPR Policy” Report, page 6

9 “Increasing Recycling Rates with EPR Policy” Report, page 6

10 “Increasing Recycling Rates with EPR Policy” Report, page 6

**4: The Recycling Partnership hopes the demonstrated impact of EPR for PPP on recycling rates depicted in this report will encourage stakeholders to continue supporting new EPR for PPP legislation.**

The Recycling Partnership works with communities, companies, and government to mobilize solutions to build a better U.S. recycling system and advance a circular economy. Well-designed EPR is an effective recycling policy to build equity, improve the environment and boost the economy and create jobs.

“Increasing Recycling Rates with EPR Policy” provided data-driven findings to inform policy discussions around EPR. So far, California, Colorado, Maine, and Oregon

have adopted EPR for PPP legislation, and the policy continues to show up in numerous analyses and halls of government. In fact, three states highlighted in the report (Washington, Connecticut, and Maryland) have had active EPR bills in the 2023 legislative session. It’s expected that more states will consider this type of legislation as momentum continues.

Well-designed EPR programs in U.S. states will provide the financial investment in recycling to unlock environmental and economic benefits, significantly improve recycling rates, and support local programs. In the sampling of U.S. states studied, the expected benefits around increased recycled content, economic value of recycled materials and greenhouse gas emission recycling can be seen in the below graph:

	Washington	Connecticut	Wisconsin	Maryland	Colorado
Recycled Content (tons)	248,000	129,400	344,200	355,200	441,300
Economic Value of Recycled Material	\$34 million	\$13 million	\$53 million	\$43 million	\$91 million
GHG Reductions (MTCO2E)	841,600	370,200	953,100	1,001,900	1,111,200

**“Projected Economic Value of Recycled Materials and Greenhouse Gas Reductions in Studied States”**

These numbers are both encouraging and inspiring to see as policy discussions continue.

**In short, the report’s evidence from worldwide jurisdictions showed that U.S. EPR policy will:<sup>11</sup>**

- » **Dramatically increase** overall residential recycling rates by as much as 48 percentage points, relative to current U.S. recycling rates. For most U.S. states examined, recycling rates under EPR could be as high as 75%.
- » **Provide** nearly universal recycling access.
- » **Deliver** increased participation and improve participant capture behavior to drive higher recycling rates.
- » **Boost** the quantity of recycled content by increasing the supply of recyclable materials by millions of tons.
- » **Recapture** between \$13 million and \$91 million in lost material economic value in EPR states across the country.
- » **Reduce** hundreds of thousands of metric tons of climate damaging emissions in EPR states.
- » **Create** thousands of jobs.

<sup>11</sup> Executive Summary, “Increasing Recycling Rates with EPR Policy,” page 2

# Conclusion

As an organization advancing a circular economy and measurable improvements in recycling, The Recycling Partnership's perspectives on what it will take to deliver scalable, systemic solutions is a benefit to the U.S. and jurisdictions abroad. Recycling is a global issue that needs bold leadership and coordination to create the circular supply chains of the future.

Through smart policy, data-driven research, and action, progress for future generations is possible.

[Download the "Increasing Recycling Rates with EPR Policy" report today to learn more about smart policy.](#)<sup>12</sup>

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<sup>12</sup> In January 2024, The Recycling Partnership released its State of Residential Recycling Report, which used a different methodology to estimate current residential recycling rates and potential new recovery from EPR policies. The report finds lower baseline rates for the states profiled in this report but projects the same scale of large increases in recycling.

# Author's Bios

## Scott Mouw

Scott brings extensive experience in taking a systems approach to recycling. In his previous role as North Carolina's State Recycling Director, Scott led efforts in fostering local collection programs, implementing recycling policy, and building a recycling economy. Scott joined The Recycling Partnership to deploy the same lessons of success to the national scale. Core to this work has been understanding the nuances of each material, the nature of recovery economics and markets, and the necessary role of metrics and data in creating a resilient and responsive recycling system. Whether it's the fine points of curbside collection, the basic MRF business model, or understanding how the supply of available material reacts to market demand, Scott is ready to engage with all stakeholders across the recycling spectrum.

## Dylan de Thomas

Dylan leads the public policy & government affairs team at The Recycling Partnership, directing advocacy efforts for the organization at the local, state, and federal levels. While at The Partnership, Dylan has worked with all of the teams across the organization, serving as a spokesperson and stakeholder representative in numerous settings to communicate, collaborate, and find consensus on complex issues. Prior to joining The Partnership, Dylan worked for Resource Recycling for a decade, directing and producing content for three publications and three conferences covering different aspects of the recycling industry.



At The Recycling Partnership, we are solving for circularity. As a mission-driven NGO, we are committed to advancing a circular economy by building a better recycling system. We mobilize people, data, and solutions across the value chain to reduce waste and our impact on the environment while also unlocking economic benefits. We work on the ground with thousands of communities to transform underperforming recycling programs; we partner with companies to achieve packaging circularity, increase access to recycled materials, and meet sustainability commitments; and we work with government to develop policy solutions to address the systemic needs of our residential recycling system and advance a circular economy. We foster public-private partnerships and drive positive change at every step of the recycling and circularity process. Since 2014, we have diverted 1 billion pounds of new recyclables from landfills, avoided more than 948,000 metric tons of greenhouse gases, and driven significant reductions in targeted contamination rates.

Learn more at [recyclingpartnership.org](https://recyclingpartnership.org).