The Association of Plastic Recyclers

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Recommit, Reimagine, Rework Recycling

How public policy and investment in post-consumer plastic collection and processing can help to meet sustainability ambitions

Recycling is an essential part of building a more sustainable world. When recycling works, it creates a circular economy, one where products and packaging come back to be made into new products.

Recycling in the U.S. is a $236 billion industry.[1] Our country has over 9,000 community recycling programs.[2] Material – including plastic – is collected through these programs and sorted and processed by more than 100 post-consumer recyclers in the US and Canada. Plastic recycling alone is responsible for over 200,000 U.S. jobs.[3]

Plastic recycling is a chain of interconnected processes and achieving a circular economy for plastic depends on every link of the chain working well together. To be effective, the chain should start with companies producing plastic packaging and products that are designed to be recycled. Consumers buy and use those products and put the recyclable plastic in the bin or take it to a store drop-off location. From there, haulers collect it, and sorting facilities and recyclers process it. Companies then buy the recycled material and make it into new products. Finally, consumers can buy products made from recycled plastic material.

Over the years, the U.S. recycling chain has become both innovative and resilient. While Americans' support for recycling is consistently high, little else about the industry has been as predictable. The shale gas revolution and a boom in drilling expanded U.S. production of oil and gas and drove down the price of virgin resin[4]. At the same time, plastic packaging has become increasingly complicated, challenging our country's sortation and processing infrastructure to keep up. And all this plastic has been inexpensive to landfill with relatively low disposal costs.

Still, in 2020, despite these obstacles and the unique challenges caused by a global pandemic and related lockdowns, American recyclers processed almost five billion pounds of post-consumer plastic material.[5] That is five billion pounds of post-consumer plastic that did not end up in a landfill or the ocean, and was instead processed and made into new products, products with a lower carbon footprint than those made with virgin materials.

Most importantly, the demand for recycled material from the companies who buy it and turn it into new products, is stronger than ever. This higher demand is driven by a variety of factors including brand sustainability commitments and legislative activity. Post-consumer resin (PCR) is increasingly seen as an essential packaging component for brands hoping to position themselves as leaders in sustainability. Meeting this high demand requires three things: (1) companies to manufacture plastic products and packaging that are compatible with recycling, (2) consumers to put recyclable material in the bin and (3) a robust recycling infrastructure to collect, sort and process that material.

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[1] "Results of the National REI Study," Environmental Protection Agency, February 21, 2016, https://archive.epa.gov/wastes/conserve/tools/rmd/web/html/result.html.
[2] "Municipal Solid Waste in the United States: 2009 Facts and Figures," Environmental Protection Agency, December, 2010, https://archive.epa.gov/epawaste/nonhaz/municipal/web/pdf/msw2009rpt.pdf.
[3] "Results of the National REI Study," Environmental Protection Agency.
[4] "The Shale Revolution's Staggering Impact in Just One Word: Plastics," Wall Street Journal, June 25, 2017, https://www.wsj.com/articles/the-shale-revolutions-staggering-impact-in-just-one-word-plastics-1498411792.
[5] "U.S. Postconsumer Plastic Recycling Data Dashboard," Circularity in Action.

Americans overwhelmingly support recycling[6], but too often, their enthusiasm is met with discouraging – and usually misleading – data points. For example, consider the Environmental Protection Agency's (EPA) latest (from 2018) overall plastic recycling rate of 9%, or other recent rough estimates of a 5-6% rate. It is important to note that these statistics include containers, packaging and durable goods meant to last many years as well as non-durable goods not intended for recycling like garbage bags.

The plastic items that most Americans buy, use and put in their recycling bins – water and soda bottles, laundry detergent jugs, yogurt tubs – do get recycled. 80%[7] of rigid plastic packaging is polyethylene terephthalate (PET), high-density polyethylene (HDPE) and polypropylene (PP). This is the kind of plastic packaging that is most used by businesses and available to consumers to put in their blue bins. Based on the latest EPA data, 19%[8]* of this kind of plastic packaging was recycled. The latest information available for PET and HDPE bottles is from 2020 and shows a recycling rate of 28%.[9] PP bottles have a recycling rate of 17%, and other PP rigid containers are at 8%.

Still, recycling numbers can – and should – be much higher, given that what we fail to recover is waste left for future generations to wade through. For example, in order to increase recycling rates for the above described highly recyclable material, it is imperative that PP containers be included in recycling collection programs along with PET and HDPE.

Over the past 30+ years, recyclers have lead innovation for improvement in the industry. They have invested millions to enhance sortation, developed new technologies to expand their ability to recycle materials and created a thriving market for recycled materials.

Today, the market demand for recycled plastic material is outpacing the supply of post-consumer plastic that is being collected and processed. As a result, it is now imperative to grow the supply of post-consumer plastic material. The U.S will need to double or triple collection of most plastic resin types to keep up with corporate sustainability commitments and the projected demand for products made from 25% or 50% PCR.[10]

Assuming sustained demand for recycled material, U.S. plastic recyclers could raise the PET and HDPE bottle recycling rate to over 40% today using our country's existing processing infrastructure *if* they were able to access more material. In other words, if more recyclable plastic products and packaging are put into recycling bins by consumers and collected, recycling rates would increase.

**An earlier version of this report found the recycling rate of post-consumer PET, HDPE and PP to be 21%. This version reflects additional industry analysis and updates that number to 19%. This version also includes supplementary data related to PP containers.*

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[6] "Americans Strongly Believe in Recycling," The Recycling Partnership, June 17, 2020, https://recyclingpartnership.org/americans-strongly-believe-in-recycling/.
[7] Association of Plastic Recyclers (APR).
[8] APR.
[9] APR.
[10] Megan Quinn, "Plastics Recycling Conference: Supply solutions needed to meet 2025 demand growth projections," WasteDive, March 14, 2022, https://www.wastedive.com/news/2022-plastics-recycling-policy-brand-content-2025/620323/.

While consumers hold a key to the solution, the responsibility cannot fall on consumers alone. The problem of plastic waste is a problem of public policy. To grow our supply of post-consumer plastic feedstock, the United States needs to develop robust public policies at the state and federal levels to drive better product and packaging design, simplify recycling, strengthen collection and sortation capabilities, and sustain high demand for recycled content.

Specifically, the U.S. should:

- Ensure that all new products and packaging being made today are compatible with recycling. Design is the cornerstone of effective recycling. In a circular economy, consumer product companies are their own material suppliers. When products are Circular by Design™, they are designed to be compatible with today's recycling system, reducing contamination, and enhancing the stream of PCR available to manufacture into new products.

- Streamline labeling to minimize consumer confusion and ensure that people know which products are recyclable and what to do with them.

- Increase the number of community recycling programs. Right now, some 40 million American families do not have access to recycling programs where they live and work.[11] When over 10% of Americans cannot recycle, we are capping the content stream and forcing recyclable items into landfills.

- Harmonize the types of plastic – at a minimum, PET, HDPE and PP – that are collected in each community program so that plastic items are universally recyclable.

- Invest in upgrades to current community collection and sortation infrastructure so that they can handle more material. As recycling programs grow, collection programs and sortation facilities will experience higher volumes of material. It is important that their technology and equipment is capable of handling that influx.

- Continue to promote and incentivize the use of recycled content. High demand for PCR is the essential driver for recycling.

- Encourage the consideration of the true cost of disposal. As long as the cost of landfilling is low compared to the cost of recycling collection and processing, communities will struggle to accept and justify the cost.

A circular economy for plastic will do more than reduce plastic waste. It is also an important contributor to decarbonization efforts. Incorporating recycled plastic resin into the manufacture of new products is linked to significant reductions in energy consumption and greenhouse gas emissions.[12] Further, when the circular

[11] "Recycling Inclusion Fund Launches to Close Equity Gap within U.S. Recycling System," The Recycling Partnership, February 24, 2022, https://recyclingpartnership.org/recycling-inclusion-fund-launches-to-close-equity-gap-within-u-s-recycling-system/.

[12] "Use of Recycled Plastic Linked to Reduced Energy Consumption, Lower Greenhouse Gas Emissions," Association of Plastic Recyclers, January 28, 2019, https://plasticsrecycling.org/news-and-media/january-28-2019-apr-press-

economy for plastic works and there is sufficient recycled content, there is less need for the carbon-intensive petrochemicals used for virgin resin.

If we want to reduce plastic waste in our world, every strategy needs to be employed. We need products – including plastic products – that can be used again and again. Much work can and should be done to make reuse programs available and equitable at scale. At the same time, we need robust recycling programs to collect, process and recycle products that cannot be reused and to recycle reusable products that have reached the end of their useful life. Recycling is the viable and accessible solution that already has the ability to expand and reach more American families.

Ultimately, Americans want recycling to work. In a June 2022 survey, nearly a quarter of Americans picked plastic waste as an issue that Congress must address in the next two years.[13] That number is up significantly from just two years ago.

At the same time, American consumers are developing a greater understanding of their dual roles in the plastic recycling chain, both recycling plastic products and purchasing products made of recycled plastic. Several new studies, including one from the Institute of Scrap Recycling Industries, show that consumers are willing to pay more to buy products created from recycled material.[14]

If we want to be serious about tackling the plastic problem in this country, we have to be serious about strengthening recycling. We must make all efforts to minimize the use of unnecessary or problematic materials, and to recover the recyclable plastic that does enter our communities through improved collection and processing capabilities.

When the plastic recycling industry is united, it can create seismic change. For years, the Association of Plastic Recyclers (APR), as the voice of the plastic recycling industry, was focused on reducing plastic pollution by driving demand for recycled plastic content among brand companies and consumers. That demand, which underpins the entire recycling chain, is now at an all-time high. Today, members of APR, with the support of the government and alongside brands and consumers, can meet and sustain that demand by growing the supply of post-consumer material. Together, we can make sure that new materials going into the market are recyclable and we can work to recover every piece of recyclable plastic and make it available for recyclers to process.

We can recommit to recycling in this country by reimagining the public policies that support its success and reworking our infrastructure to ensure that a circular economy for plastic can thrive.

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[13] Sharon Udasin, "More Americans want Congress to prioritize plastic waste problem: poll," The Hill, June 7, 2022, https://thehill.com/policy/equilibrium-sustainability/3514771-more-americans-want-congress-to-prioritize-plastic-waste-problem-poll/. .

[14] "Green" Gifts on the Lists of Holiday Shoppers this Season," Institute of Scrap Recycling Industries, November, 2014, https://www.isri.org/news-publications/news-details/2014/11/25/-green-gifts-on-the-lists-of-holiday-shoppers-this-season

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