



Current Challenges Facing Community Recycling Programs and Potential Solutions

Testimony Presented to the Committee on Environment and Public Works United States Senate

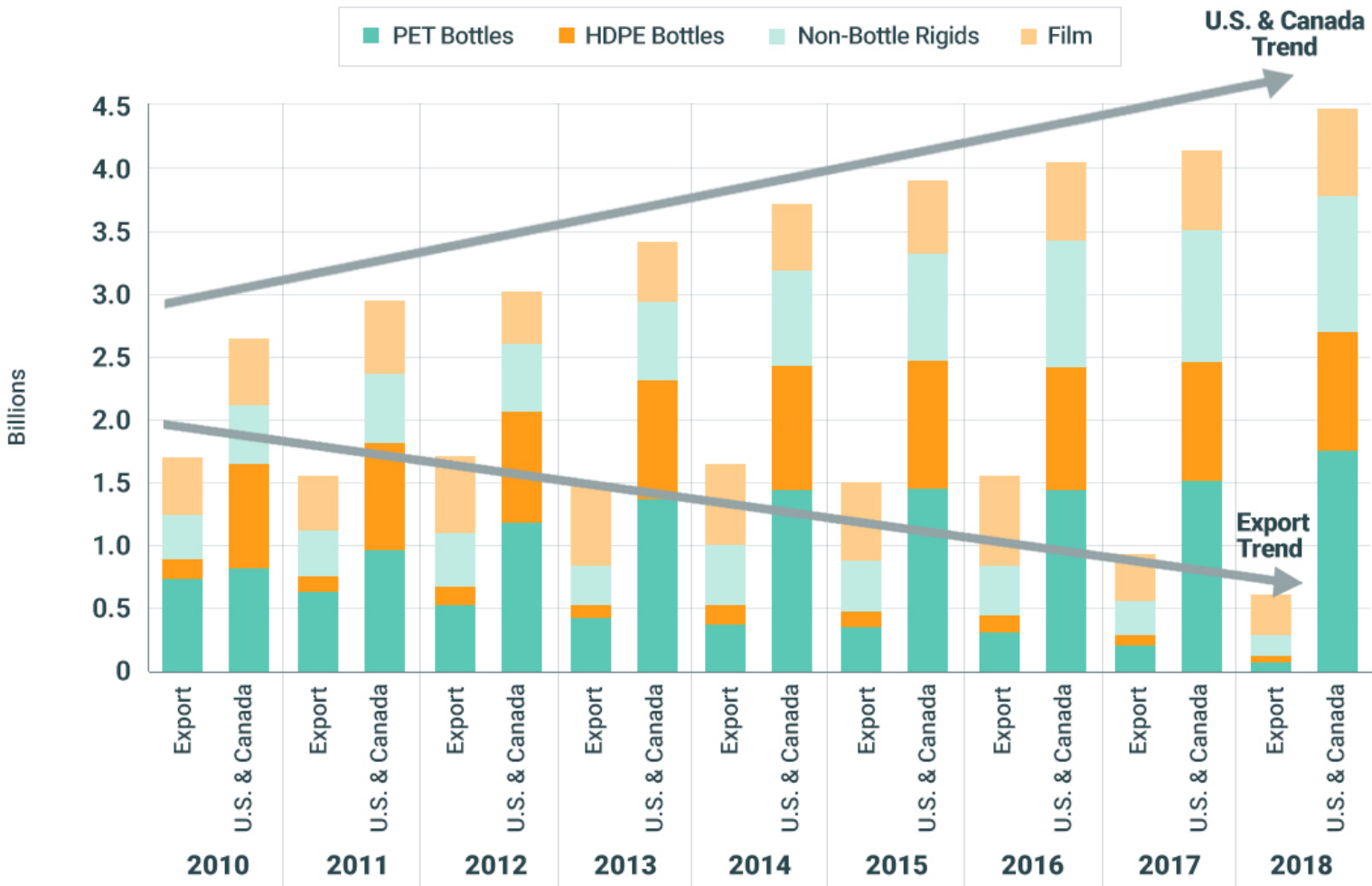
Presented by: Nina Butler - CEO More Recycling, a business of Stina

June 17, 2020



U.S. Post-Consumer Plastic Recycling Trend

U.S. Post-Consumer Plastic Recycling (Billions of pounds)



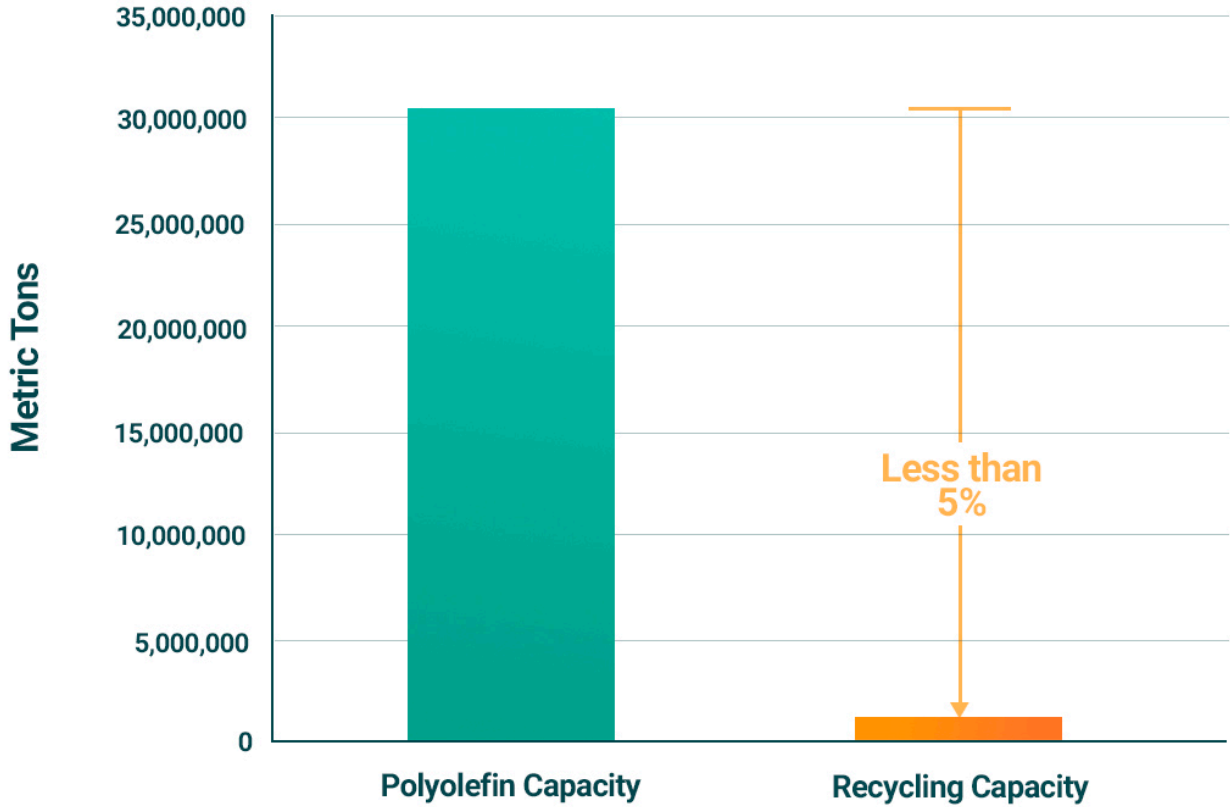
Export Percent by Category

	2010	2018
PET Bottles	47%	3%
HDPE Bottles	16%	6%
Non-bottle Rigid	44%	14%
Film	47%	31%
All of the Above	39%	12%

U.S. Polyolefin Capacity

10 Largest Virgin Producers vs Majority of Postconsumer Reclaimers (Bottles, Non-Bottle Rigid & Film)

Note: Approximate figure includes existing reclamation capacity in 2019. It does not include announced future capacity.

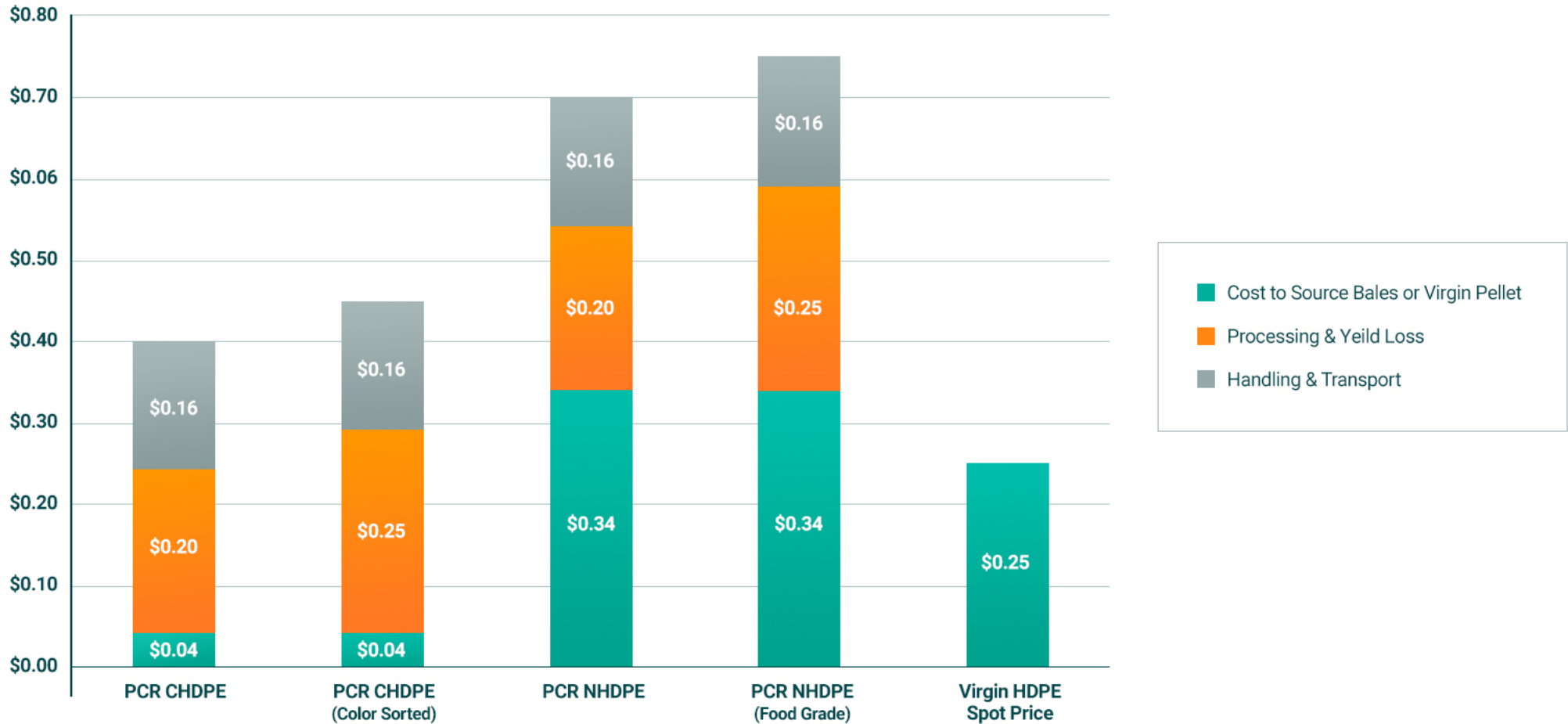


Source: IHS Markit and More Recycling

Recycled Plastic Is More Expensive than Virgin Plastic/Resin

PCR vs Virgin

(Pellet Price & Costs Associated to Process PCR)



PCR CHDPE = Postconsumer Resin colored High Density Polyethylene

PCR NHDPE = Postconsumer Resin natural (colorless) High Density Polyethylene

1. The use of plastics saves resources and reduces GHG, benefiting the planet.
2. The use of plastics creates massive pollution at its end of life, severely harming the planet.

Plastic Paradox

**GHG
Savings**



**Plastic
Waste**

Again, without a change in consumption patterns, such as expecting to get fruit from thousands of miles away or cook what we buy within days, we will have more food waste and more GHG emissions with the elimination of plastic.



Examples of Plastic Packaging Innovation

Food Item	Original Packaging	New Packaging	Result
Beef Packaging 	ORIGINAL Polystyrene foam tray with cling wrap	NEW Vacuum packing in oxygen barrier film	RESULT Shelf life extended from 4 days up to 30 days
Grapes Packaging 	ORIGINAL Sold loose	NEW Perforated plastic bags	RESULT Bagging leads to 20% reduction in in-store waste

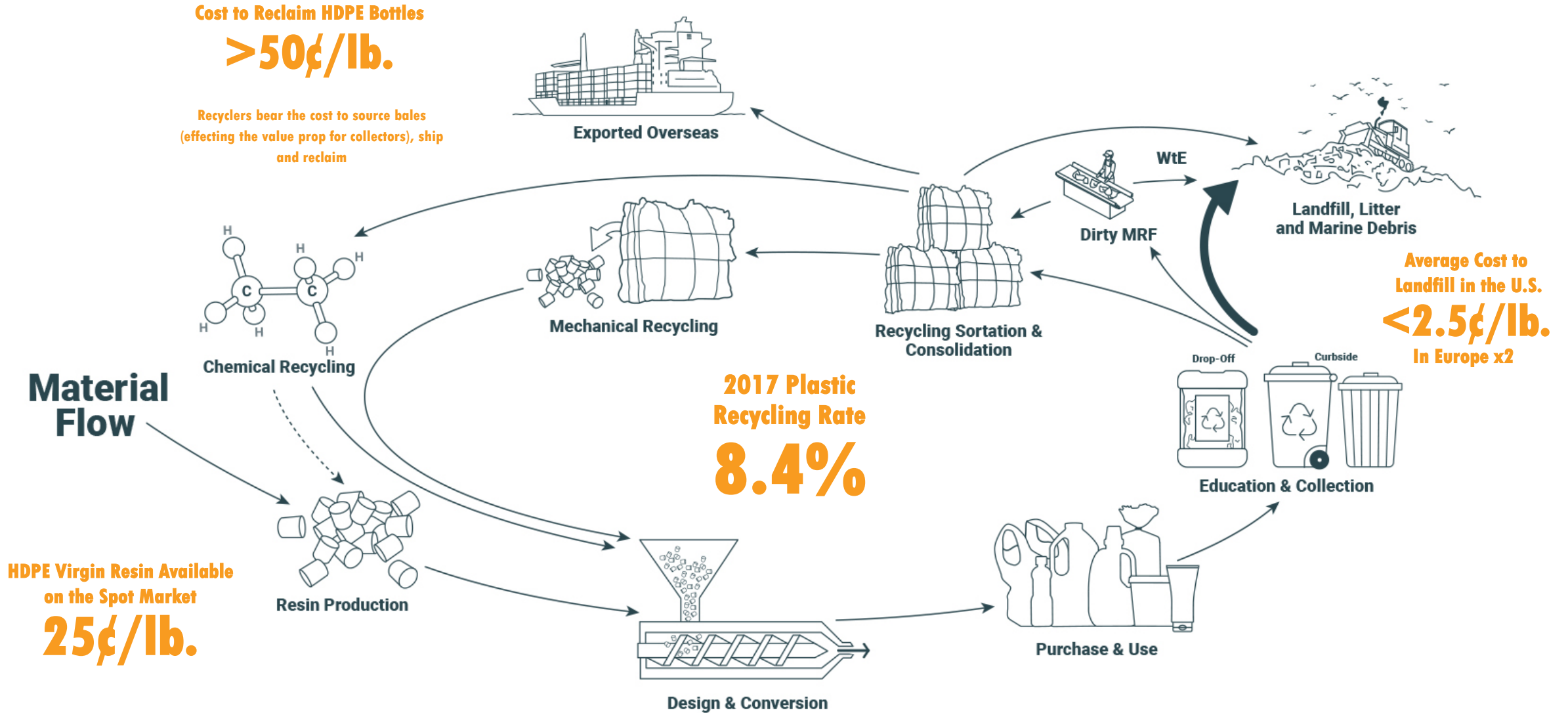
Source: 2016 American Chemical Society

Packaging Efficiency = Reduced Need for Resource Use

One pallet of plastic film packages the same number of diapers as 14 pallets of paper board resulting in significant energy savings.



Barriers to the Circular Economy



Recycling Actions and Drivers

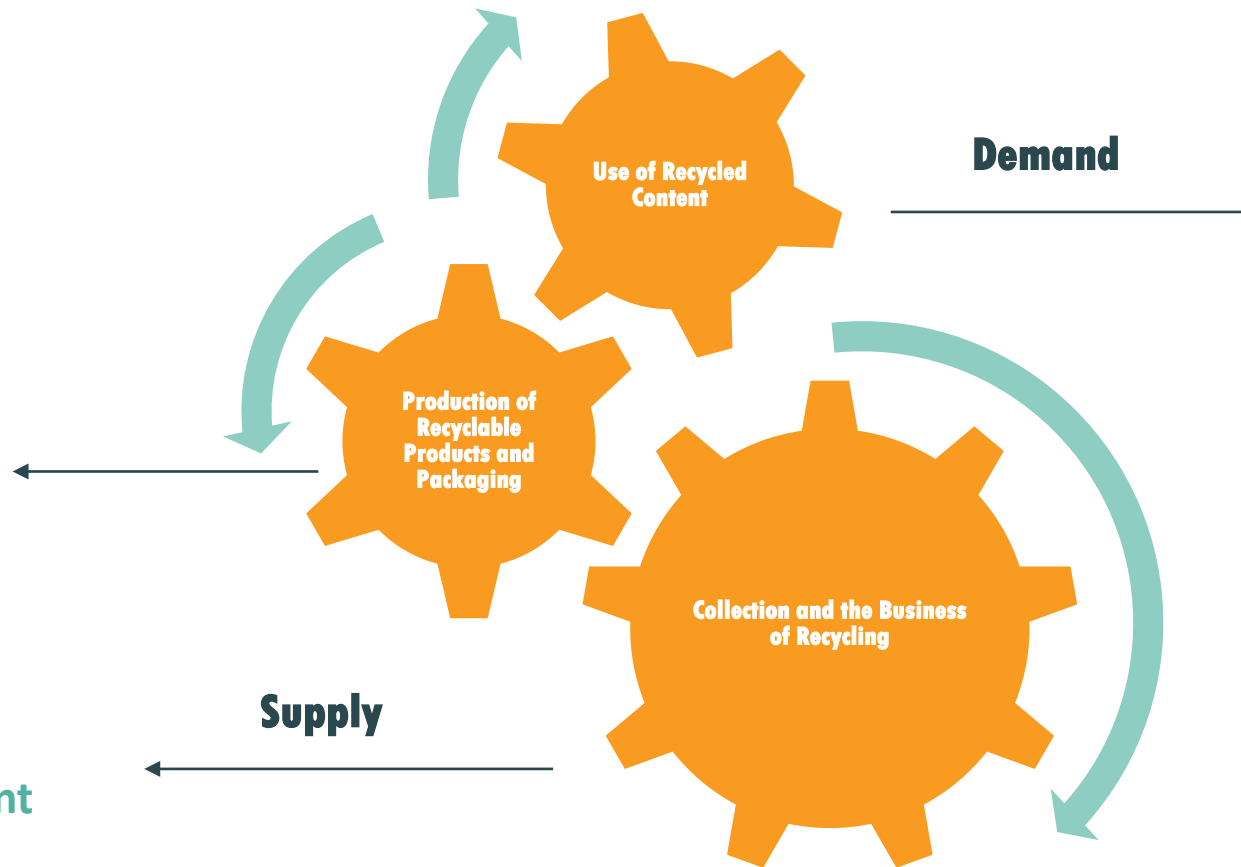
Design for Recycling

Elements of Recyclability

- Market Compatibility
- Consolidation to Market
- Recycling Access

Recycle Right

Produce Recycled Content



Demand Drivers

- Producers to **Use Recycled Content** in their products and packaging
- Business and Citizens to **Buy Products with Recycled Content**
- **Verification** of claims and **methodology** used to make claims of recycled content

Tools we offer to create transparency: Buy Recycled Products Directory

The screenshot displays the RecycleMorePlastic.org website. At the top, a navigation bar includes links for Home, Buy Recycled, Terms & Tools, PP Recycling Map, Sort for Value, and What Who & How Series. The main header features the RecycleMorePlastic.org logo and a 'Personal Use Products' section. This section includes a 'BUY RECYCLED PRODUCTS DIRECTORY' logo with the tagline 'Because you care.' and a descriptive paragraph about the Buy Recycled movement. Below this is the 'BUY RECYCLED PERFORMANCE METER' section, which features a diagram showing 'Percentage Made from PCR' (100%), 'Products Made with Multiple Materials' (checked), 'Primary Type of PCR Used' (HDPE), and 'Recycled Content Certification' (checked). A text box explains that the Performance Meter provides a snapshot of a product's Buy Recycled performance, including PCR percentage, resin type, and certification. A category navigation bar includes buttons for Apparel, Accessories, Household Goods, Personal Care, Home Care, and More. Below the navigation bar, there are links to 'Share it >' and 'Go to Business Use Products >'. The main content area shows a grid of product listings, each with an image, a performance meter, product name, company, and share buttons. The first listing is a 'Hand Wash Bottle' by Method, made of 100% HDPE. Other listings include a 'Lounge Chair' by Loll Designs (100% HDPE), '3D Printing Filament' by Closed Loop Plastics (100% HIPS), and a 'Women's Jacket' by Roxy Inc (100% HDPE).

TOOLS TO TAKE ACTION

Depending on which section of the recycling value chain you are focused on, use tools and information specific to help you take action and stimulate the American recycling economy.

RECYCLE RIGHT
BUY RECYCLED
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ROPLAST INDUSTRIES
 CIRCULARITY IN ACTION

THE ECONOMICS OF RECYCLING

The supply and demand of recycled content leads to the success for the economics of recycling to work.

SUPPLY
DEMAND
Circular Economy

RECYCLING MARKET DEVELOPMENT PLATFORM™

Circularity in Action

Better Policy. Greater Innovation. More Action.

CONTINUE

Patrons: American Chemistry Council, Plastics Europe, NRC, NERC, APR, MORE RECYCLING

ALL TOOLS TO SUPPORT THE RECYCLING VALUE CHAIN

Showing 1 - 12 of 12 Results

Comprehensive Procurement Guidelines (CPG) Product Supplier Directory

The CPG Directory promotes the procurements of new products made from materials recovered from the municipal solid waste stream. Use this directory to search by product and utilize the contacts provided to facilitate purchasing more sustainable products.

Material: Plastic, Metal, Fiber, Glass
Action: Buy Products Made with Recycled Content
Category: Recycled Products
Role: Commercial Business/Organizations, Governments/Institutions

Buy Recycled Products Directory

Buying recycled is essential to create the demand for the products and packaging we as individuals or businesses recycle. This directory provides listings of plastic products and packaging made with recycled content. Use this directory to find products for personal and business use.

Material: Plastic
Action: Buy Products Made with Recycled Content
Category: Recycled Products
Role: Commercial Business/Organizations, Governments/Institutions, Citizens

Film Drop Off Directory

Most communities do not accept plastic film and bags in their curbside bins or at municipal drop off collection sites. Use this directory to find drop-off locations by zip code that accept plastic bags and film packaging in your area for recycling.

Material: Plastic
Action: Recycle Right
Category: How to Recycle
Role: Citizens

APR Design Guides

The APR Design Guide was developed to help packaging design engineers create packaging that is fully compatible with plastics recycling systems in North America. Use the Guide to design for recycling and help achieve high levels of marketable recycled content.

InfoExchange

ROPLAST INDUSTRIES is present across the U.S.

COMING SOON
 LEARN ABOUT THE GIANTS OF THE RECYCLING ECONOMY

STIMULATING THE AMERICAN RECYCLING ECONOMY REQUIRES THAT WE BRING INFORMATION FRONT AND CENTER ABOUT WHY IT'S IMPORTANT TO RECYCLE

- RECYCLE 1 TON OF PLASTIC AND YOU CAN SAVE ENERGY TO POWER A LIGHT BULB FOR 20 HRS.
- RECYCLING 1 TON OF PLASTIC SAVES 7,000 GALLONS OF WATER
- REDUCTION IN ENERGY CONSUMPTION FROM RECYCLING PET BOTTLES AND CONTAINERS: PET 79% MORE 50% PP 88%
- 164,154 JOBS DIRECTLY SUPPORTED BY RECYCLING & BROADCASTING OPERATIONS





Thank you

Nina Butler

