



# Trash Talks: Recycling Wins in Texas and the U.S.

November 15, 2024

NCTCOG Recycle Roundtable



North Central Texas  
Council of Governments  
Environment & Development

# NCTCOG Webinar Procedures

- Please keep your microphone on mute when not speaking.
- Please state your name and the entity you are representing when you ask a question or provide a comment.
- Please use the **Q&A Box for questions** and the **Chat box for general comments**

# What is the North Central Texas Council of Governments?

- Voluntary association of local governments
- Established in 1966
- Assists local governments in:
  - Planning for common needs
  - Cooperating for mutual benefit
  - Recognizing regional opportunities
  - Resolving regional problems
  - Making joint decisions



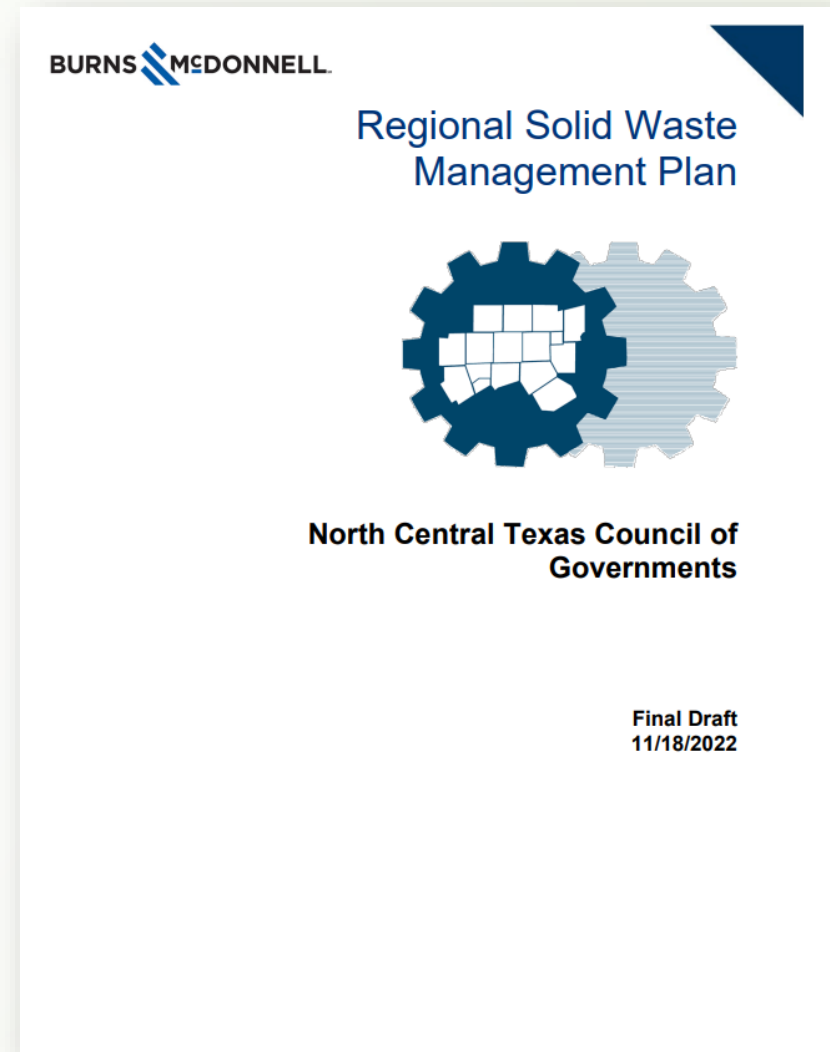
# Environment and Development Department

- Work with a diverse set of stakeholders to address regional challenges
- Facilitate committees that work to find solutions to regional challenges
- Funded through grants and local partners



# Regional Materials Management Planning

- NCTCOG is the designated regional solid waste planning agency for North Central Texas:
  - Store a Closed Landfill Inventory
  - Promote education and outreach
  - Administer a pass-through grant program
  - Support the Resource Conservation Council
  - Provide local governments with technical assistance
- Coordinate with partners to implement and advance materials management programs in North Central Texas
- Maintain “Regional Solid Waste Plan”



# **Trash Talks:** Recycling Wins in Texas and the U.S.

**Grant Rodriguez Amlani**  
U.S. Recycling Pact

**Steve Shannon**  
State of Texas Alliance for  
Recycling (STAR)





# **Trash Talks:** Recycling Wins in Texas and the U.S.

**Steve Shannon**

**State of Texas Alliance for  
Recycling (STAR)**

# **Legislative History – Recycling in Texas**

- **(Clean Water Act, Clean Air Act – Billions in Federal Infrastructure \$ and Bonds**
- **RCRA – 1976 – No Federal \$ or Bonds**
- **RCRA Made Local Government Responsible for SWM**
- **Texas Solid Waste Act – 1989 – Ratified RCRA (MOSTLY\*\*)**
- **Texas Recycling Development Office (Anne Richard) – existed 1 year – defunded by Governor Bush**
- **Landfill/Disposal Based Management Model**
- **201 Landfills / 100 "Transfer Stations" MRFs**



# **Recent Legislative Initiatives**

- **Since 2000 – 6 attempts to pass a Bottle/Deposit Bill – all failed**
- **Per TX SW Act – Recent 20 Year SWM Plans by COGs**
- **HB 2763 – 2019 – "Economic Impacts of Recycling in Texas"**
- **SB 463 – 2021 – "Recycling Market Development Plan"**
- **RMDP – 2023 - Recommends a Recycling Market Development Board and Recycling Market Development Center (Universities)**
- **2023 – STAR proposed a Recycling Market Development Advisory Committee – Failed to obtain a legislative Sponsor**
- **2025 – We are trying again!**

# **How Big is Trash in Texas?**

- Landfill – 40,000,000 tons / Recycle 20,000,000 Tons
- Total 60,000,000 Tons of Solid Waste Annually
- @ Landfill Density of 1,000 pounds/cubic yard
- = 120,000,000 cubic yards
- Standard Railcar Capacity – 194 cubic yards
- $120,000,000 \text{ cy} \div 194 \text{ cy/Railcar} = 618,557 \text{ Railcars}$
- $\times 50' \text{ /Railcar} = 30,927,835 \text{ feet}$
- $30,927,835 \text{ feet} \div 5,280 \text{ ft/mile} = 5,857 \text{ miles}$
- Texarkana to El Paso – 812 Miles
- $5,857 \text{ miles} \div 812 \text{ Trip Miles} = 7.2 \text{ Trains/Year}$

# **How Big?, Cont...**

- **@ Collection Vehicle Density of 500 lb./cy = 14.2 Trains/Year**
  - **@ Set-Out Density of 100 lb./cy = 71 Trains/Year**
- 

## **Economic Impact**

- **22,000 Texans Employed in Collection, Processing, Haul to Market**
- **9,000 Texans Employed by Mfg. That Use Recyclables as Feed-Stock**
- **31,000 Texans Employed in Recycling (not incl Scrap Metal)**
- **\$7,800,000,000 Annual Economic Impact to Texas (Direct, Indirect and Induced)**
- **@ 33% Recycling Rate**
- **RMDP says 43% of Landfilled tons (15MM/yr) could be Sustainably Recycled for an additional Economic Impact of \$10 BB/Year**

## **TRIED – IT (Texas Recycling Infrastructure Economic Development – Initiative Team) (Spring of 2025 Seminar)**

- To Explore the potential for, and methodologies to facilitate development of recycling processing, densification and manufacturing use in rural and underserved urban areas in Texas = Inter-local Governmental Cooperation
- CAPCOG
- Texas Economic Development Council
- Texas Association of Regional Councils
- Keep Texas Beautiful/Keep Texas Recycling
- The Recycling Partnership
- State of Texas Alliance for Recycling
- **Hope to Replicate in Other COGs!!!**



# **Trash Talks:** Recycling Wins in Texas and the U.S.

**Grant Rodriguez Amlani**  
**U.S. Recycling Pact**





# **Texas Recycles Day**

**Grant Rodriguez Amlani**



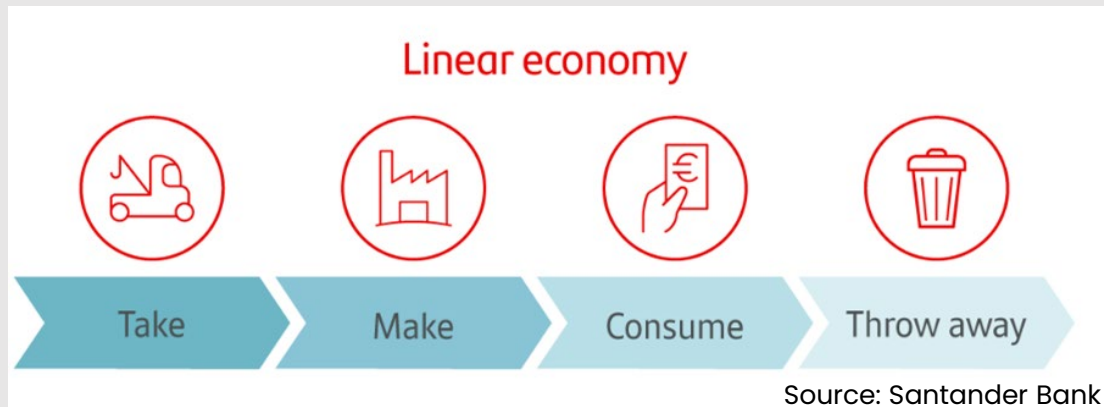


# Today's Agenda

- > Understanding models of resource production and consumption: linear and circular
- > Background of environmental justice
- > Work happening in the U.S. around plastic recycling and reuse.
- > Exploring policy in the U.S. and outcomes in Texas

# Linear Economy Models

Predominant model that exists in society today



## WASTE MANAGEMENT HIERARCHY

most preferred

SOURCE REDUCTION & REUSE

RECYCLING & COMPOSTING

ENERGY RECOVERY

TREATMENT &  
DISPOSAL

least preferred



An aerial photograph of a forest with trees in various shades of green and yellow, indicating autumn. The trees are densely packed, and the colors are vibrant. The image is used as a background for the text.

# Circular Economy

**An economy that is restorative and regenerative by design.**

A systemic approach to economic development designed to benefit businesses, society, and the environment. In contrast to the 'take-make-waste' linear model, a circular economy aims to gradually decouple growth from the consumption of finite resources.

It is based on three principles:

- Eliminate waste and pollution
- Circulate products and materials
- Regenerate nature

# Circular Economy Models

## WASTE MANAGEMENT HIERARCHY

most preferred

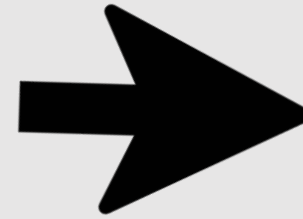
SOURCE REDUCTION & REUSE

RECYCLING & COMPOSTING

ENERGY RECOVERY

TREATMENT &  
DISPOSAL

least preferred



## R- LADDER

most preferred

REFUSE

REDESIGN

RETHINK

REDUCE

REUSE

REPAIR

REFURBISH

REMANUFACTURE

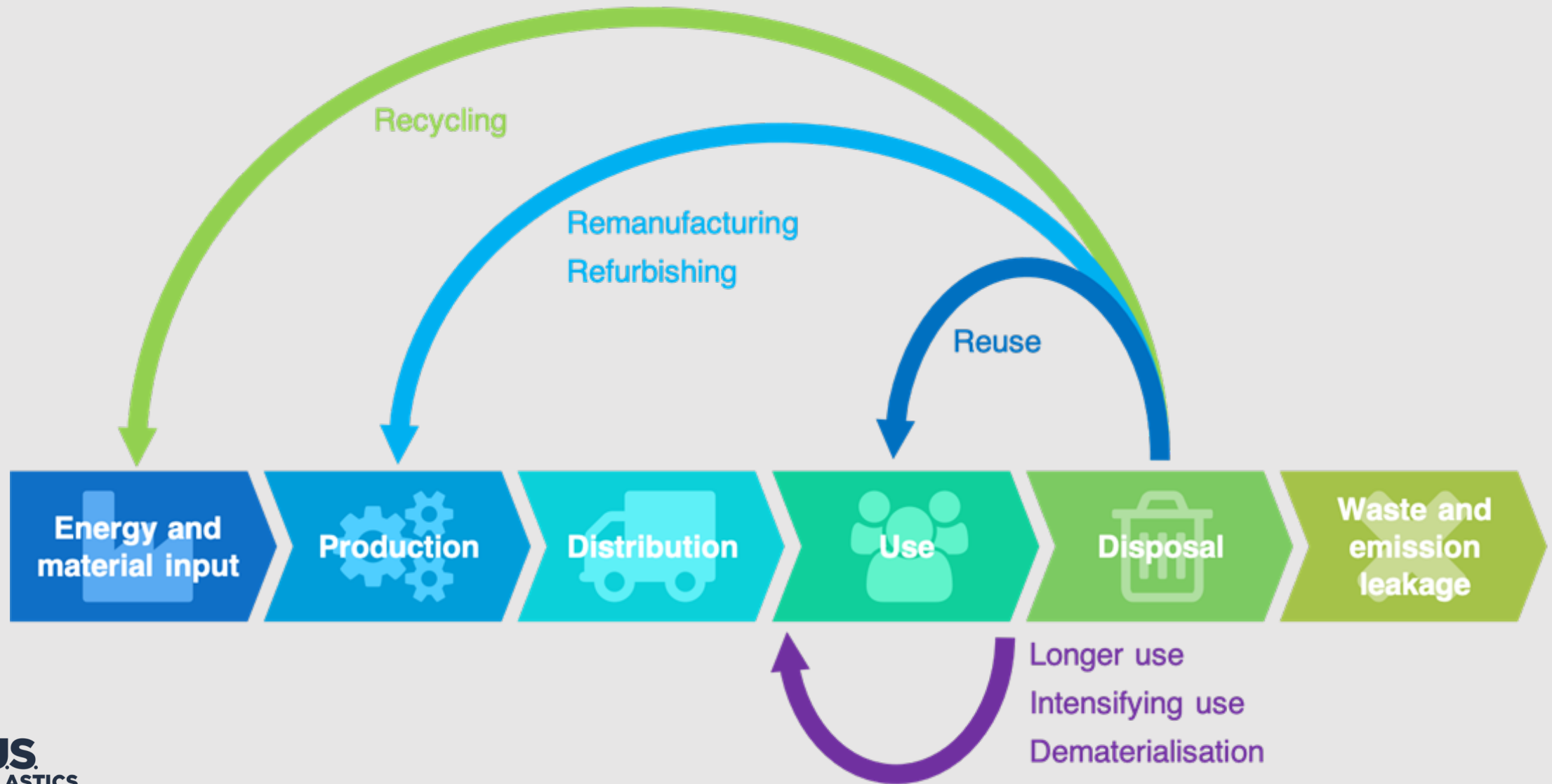
REPURPOSE

RECYCLE

RECOVER

least preferred

# Circular Economy Models





# Environmental Justice

## EPA definition

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys:

- The same degree of protection from environmental and health hazards, and
- Equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

## UN Human Rights Program

Human rights are rights we have simply because we exist as human beings – they are not granted by any state.

## UN Environment Program

Human rights and the environment are intertwined; human rights cannot be enjoyed without a safe, clean and healthy environment; and sustainable environmental governance cannot exist without the establishment of and respect for human rights

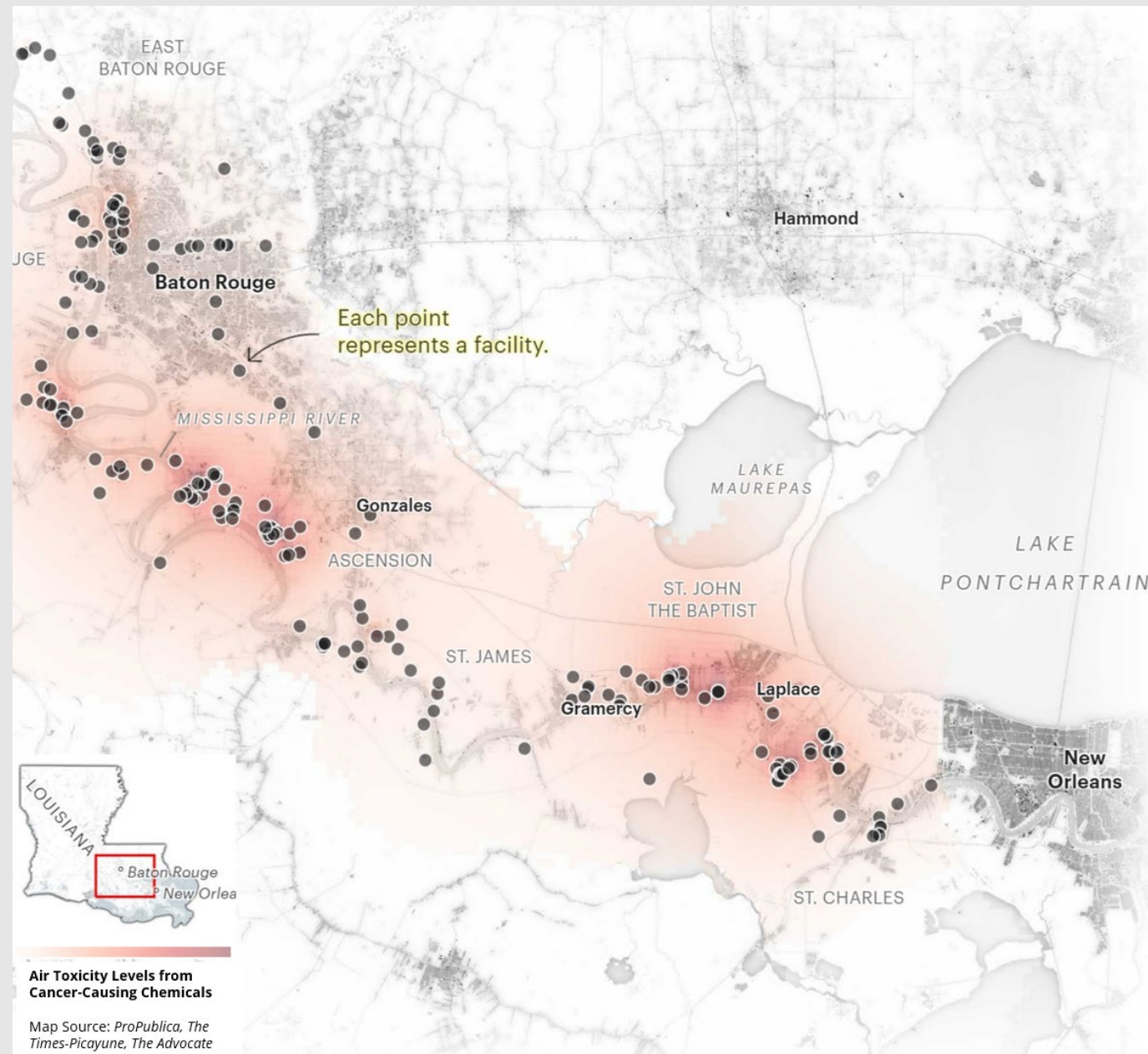
# Environmental Justice and Sustainability



# Environmental Justice

A circular economy that includes environmental justice creates opportunities and supports inclusivity and well-being for all people.

**Environmental justice communities**— in the United States and globally bear the brunt of the environmental harms associated with plastic pollution

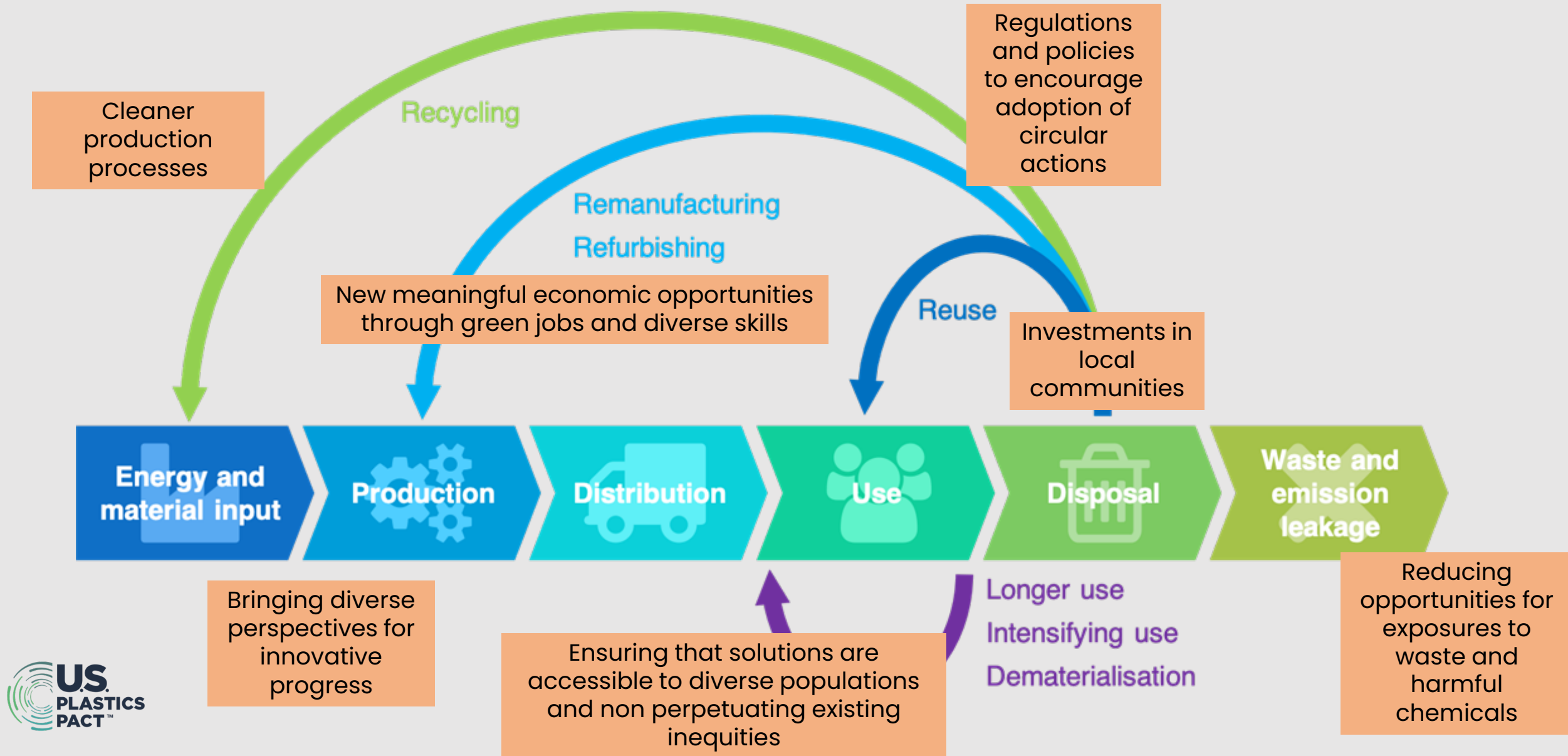


Louisiana's Cancer Alley



# Circular Economy Models

## For a Just Transition





An aerial photograph of a beach and ocean. The left side shows a sandy beach with some footprints, and the right side shows the ocean with white-capped waves breaking. The image is split vertically, with the beach on the left and the ocean on the right.

**Only together  
can we achieve a  
circular economy.**



**1**  
**Eliminate all items on the Problematic and Unnecessary Materials List and reduce the use of virgin plastic by 30% by 2030**

**2**  
**Design and manufacture 100% of plastic packaging to be reusable, recyclable, or compostable**

## **U.S. Pact Targets**

**5**  
**Identify viable reusable packaging systems and increase their implementation and scale by 2030, as part of reducing the use of virgin plastics**

**3**  
**Effectively recycle 50% of plastic packaging and establish the necessary framework to recycle or compost packaging at scale**

**4**  
**Achieve an average of 30% postconsumer recycled content or responsibly sourced biobased content across all plastic packaging**



# 11 MATERIALS TO BE ELIMINATED

The 11 items listed are not currently reusable, recyclable, or compostable with existing U.S. infrastructure at scale and are not projected to be kept in a closed loop in practice and at scale by 2025.



4 When non-reusable, non-recyclable, or non-compostable per U.S. Pact definitions and provided as an ancillary item to the primary container. For instance, a packet of plastic cutlery provided with a prepared salad, or a straw/stirrer provided with a beverage used on the go would be defined as problematic whereas cutlery, straws or stirrers sold as a product would not.

5 "Intentionally added" either in the package or in the manufacturing of that package.

6 "PFAS" or perfluoroalkyl and polyfluoroalkyl substances are defined as the class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom at or above 100 parts per million, as measured in total organic fluorine.

7 Any color other than transparent blue or green.

8 Including oxo-biodegradable additives.

9 This includes adhesives, inks, materials (e.g., PETG, PVC, PLA, paper). Avoid formats/materials/features that render a package Detrimental or Non-Recyclable per the APR Design® Guide. Labels should meet APR Preferred guidance for coverage and compatibility and be tested in any areas where this is unclear.



## TARGET 1

# PROBLEMATIC AND UNNECESSARY MATERIALS LIST: DECISION TREE

The material must also meet one or more of the following criteria to be considered problematic or unnecessary:

**NO**

### CRITERION 1

Is the material reusable, recyclable, or compostable now or will it be by 2025?

**YES**

The material is **NOT** considered problematic or unnecessary.

### CRITERION 2

Does the material contain **hazardous chemicals** or create hazardous conditions that pose a significant risk to human health or the environment (applying the precautionary principle) during its manufacturing, recycling (whether mechanical or chemical), or composting process?

**PROBLEMATIC**

### CRITERION 3

Can the material be **avoided** (or **replaced** by a reuse model) while maintaining utility? (Is the format or material necessary?)

**UNNECESSARY**

### CRITERION 4

Does the material **hinder** or **disrupt** the recyclability or compostability of other items?

**PROBLEMATIC**

### CRITERION 5

Is there a **high likelihood** of the material being littered or ending up in the natural environment?

**PROBLEMATIC**

Does the material **meet** Criteria 2, 3, 4, and/or 5?

The material is **NOT** considered problematic or unnecessary.

**NO**

**YES**

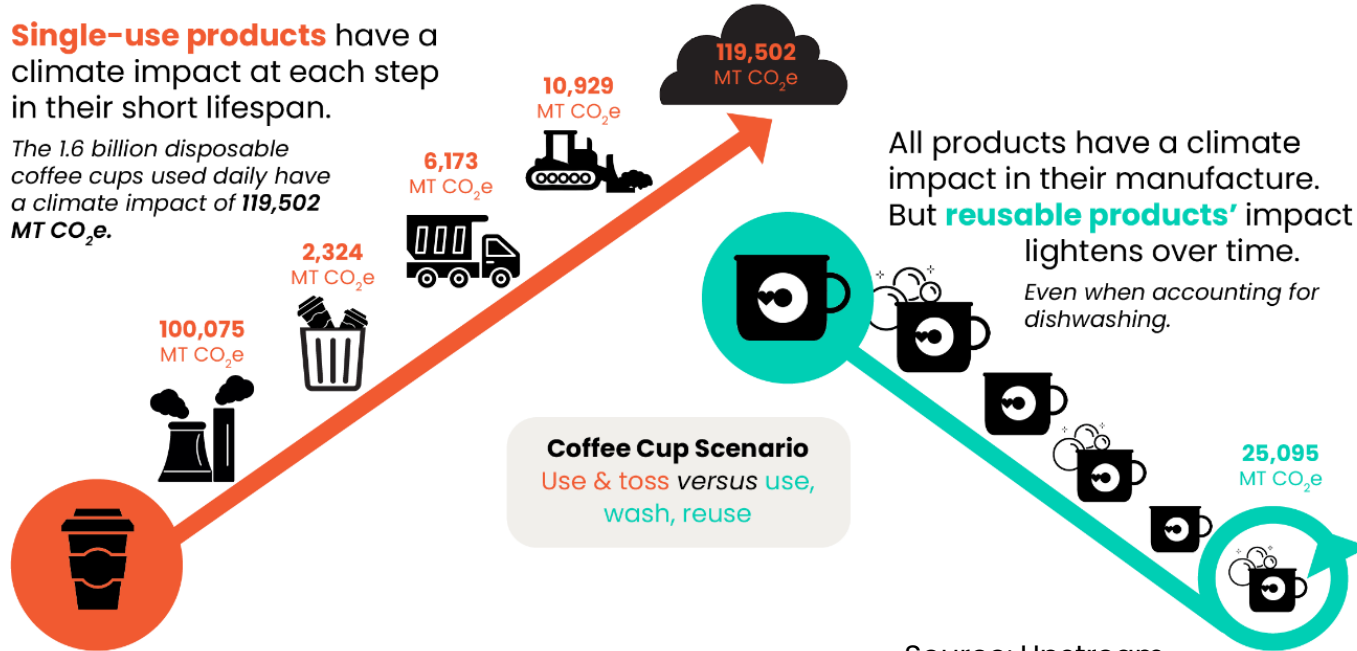
The material **IS** considered problematic or unnecessary.



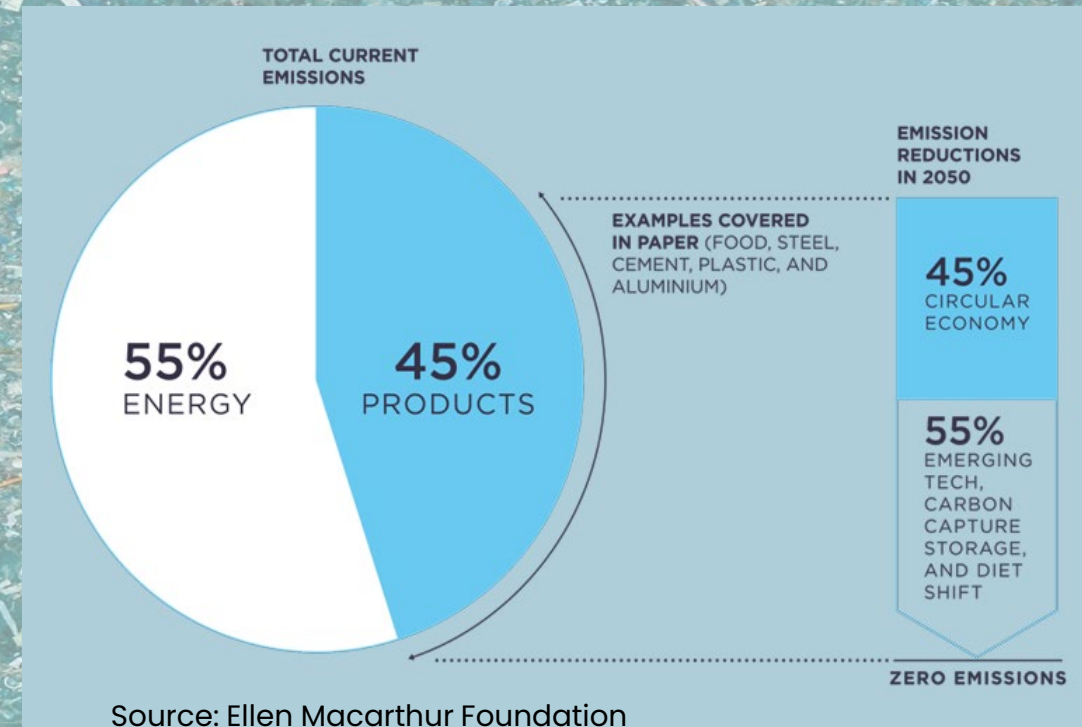
# Potential Climate Benefits from Reuse

**Single-use products** have a climate impact at each step in their short lifespan.

The 1.6 billion disposable coffee cups used daily have a climate impact of **119,502 MT CO<sub>2</sub>e**.



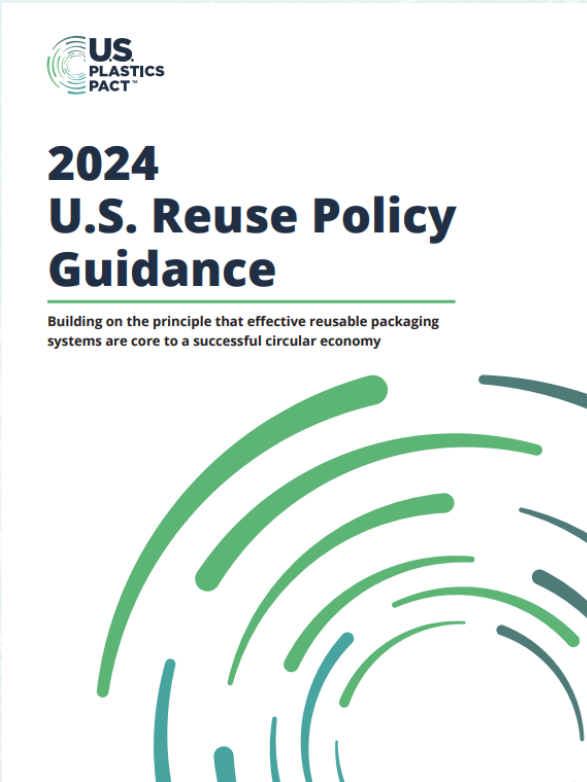
Source: Upstream



Source: Ellen Macarthur Foundation







# Resource Sharing



## Reuse Policy Guidance

provide guidance to scale reusable packaging systems through legislation, regulation, incentives, and other government practices

 <p><b>Procurement &amp; Purchasing Resources</b></p> <p>Topics include:</p> <ul style="list-style-type: none"><li>◦ Finding a PCR Supplier</li><li>◦ Purchasing Options</li><li>◦ Pricing Considerations</li><li>◦ Contract Considerations</li></ul> <p><a href="#">LEARN MORE</a></p>	 <p><b>R&amp;D/Quality Assurance Resources</b></p> <p>Topics include:</p> <ul style="list-style-type: none"><li>◦ Quality Considerations</li><li>◦ Food Grade Applications</li><li>◦ Working with Your Converter</li><li>◦ On-pack labeling</li></ul> <p><a href="#">LEARN MORE</a></p>	 <p><b>Brand, Sustainability &amp; Gov't Affairs Resources</b></p> <p>Topics include:</p> <ul style="list-style-type: none"><li>◦ Why Use PCR?</li><li>◦ Consumer Perceptions of PCR</li><li>◦ Legislation &amp; Regulation</li><li>◦ Overcoming Financial Barriers (Coming Soon)</li><li>◦ Other Resources</li></ul> <p><a href="#">LEARN MORE</a></p>	 <p><b>Why and how to buy products with PCR</b></p> <p>Topics include:</p> <ul style="list-style-type: none"><li>◦ What is PCR?</li><li>◦ Recycled vs. Recyclable</li><li>◦ Why Buy Products with PCR?</li><li>◦ How to identify products with PCR</li></ul> <p><a href="#">LEARN MORE</a></p>
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## PCR Toolkit

working to increase usage of Postconsumer Recycled Content (PCR) and in effect, decrease their usage of virgin plastic.

# 2025 TARGET PROGRESS

## KEY DATA POINTS

The data help the U.S. Pact have a better understanding of the scale of the challenges ahead and action steps we must take to address the gaps.



### 5.8 million MT

the total weight of plastics placed on the market by U.S. Pact Activators. Of this, 3.06 million MT are attributed to B2C and B2Retail sales.



### 33%

of all plastic packaging **in scope** in the U.S. by weight is produced by U.S. Pact Activators.



### TOP 3

PET bottles, HDPE bottles, and PP other rigid packaging are the top three plastic packaging formats represented within the U.S. Pact by weight.



#### TARGET 1

### 92%

of the plastic packaging placed on the market by U.S. Pact Activators by weight did not contain items on the Problematic and Unnecessary Materials List.



#### TARGET 2

### 47.7%

of plastic packaging placed on the market by U.S. Pact Activators by weight is reusable, recyclable, or compostable.



#### TARGET 3

### 13.3%\*

is the national U.S. recycling rate for plastic packaging.



#### TARGET 4

### 9.4%

is the average postconsumer recycled content (PCR) or responsibly sourced biobased content in scope used by U.S. Pact Activators.

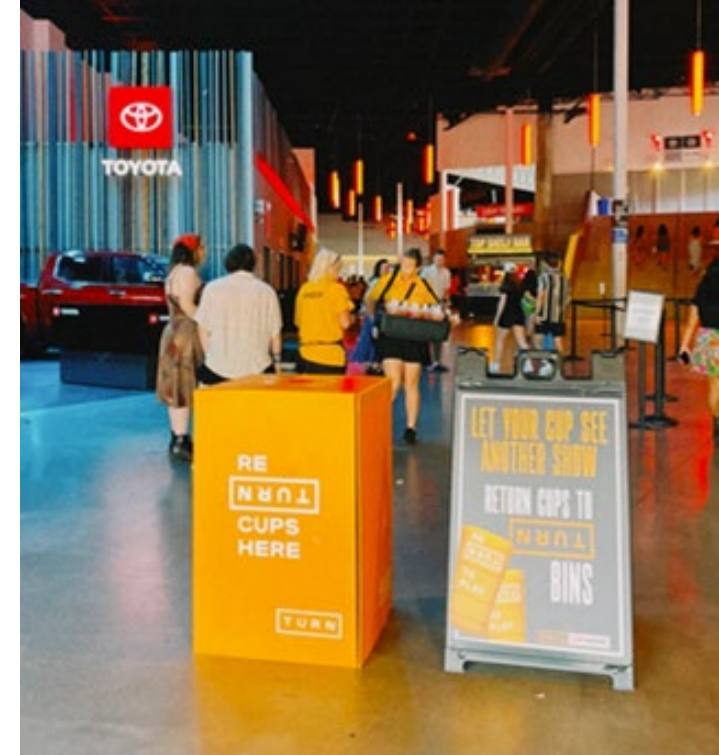
\* Reflects previously reported recycling rate due to lack of update from the U.S. EPA since 2018.



# Celebrating Successes



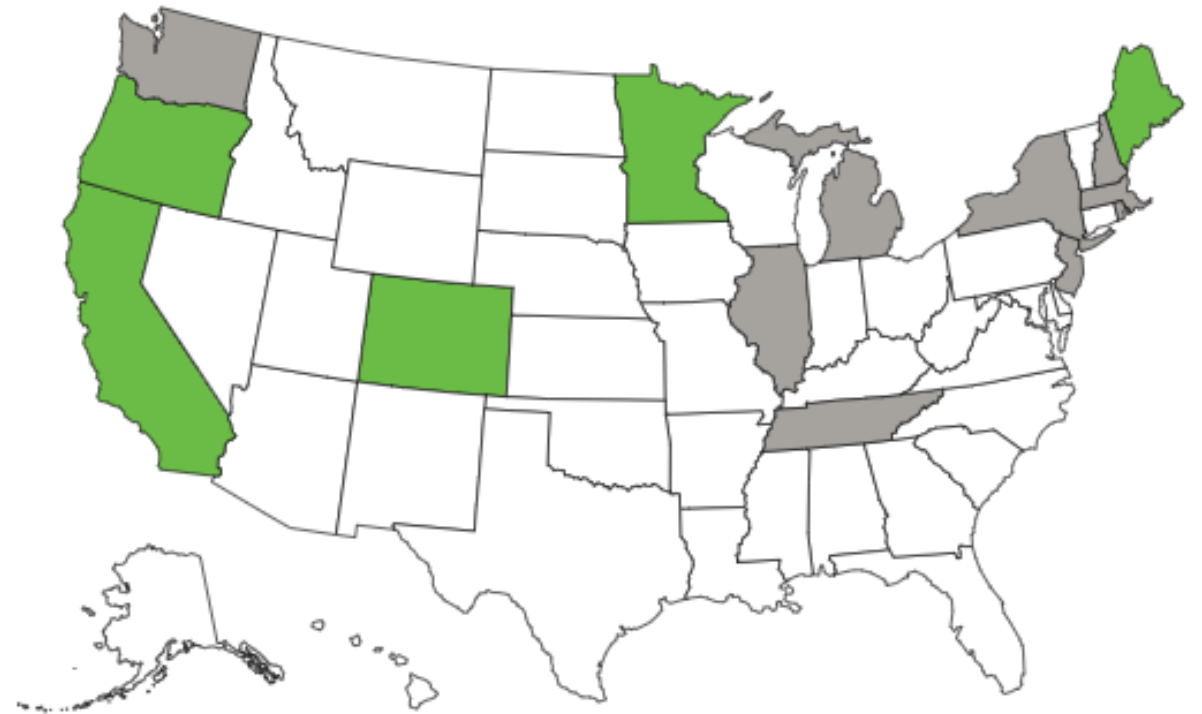
D6 and Walmart collaborate on a community recycling program with free self-service recycling drop-off locations at 54 Walmart and Sam's parking lots across five states including Texas.



TURN and LiveNation work together to provide reusable cups at live event venues across venues in Texas and the U.S.

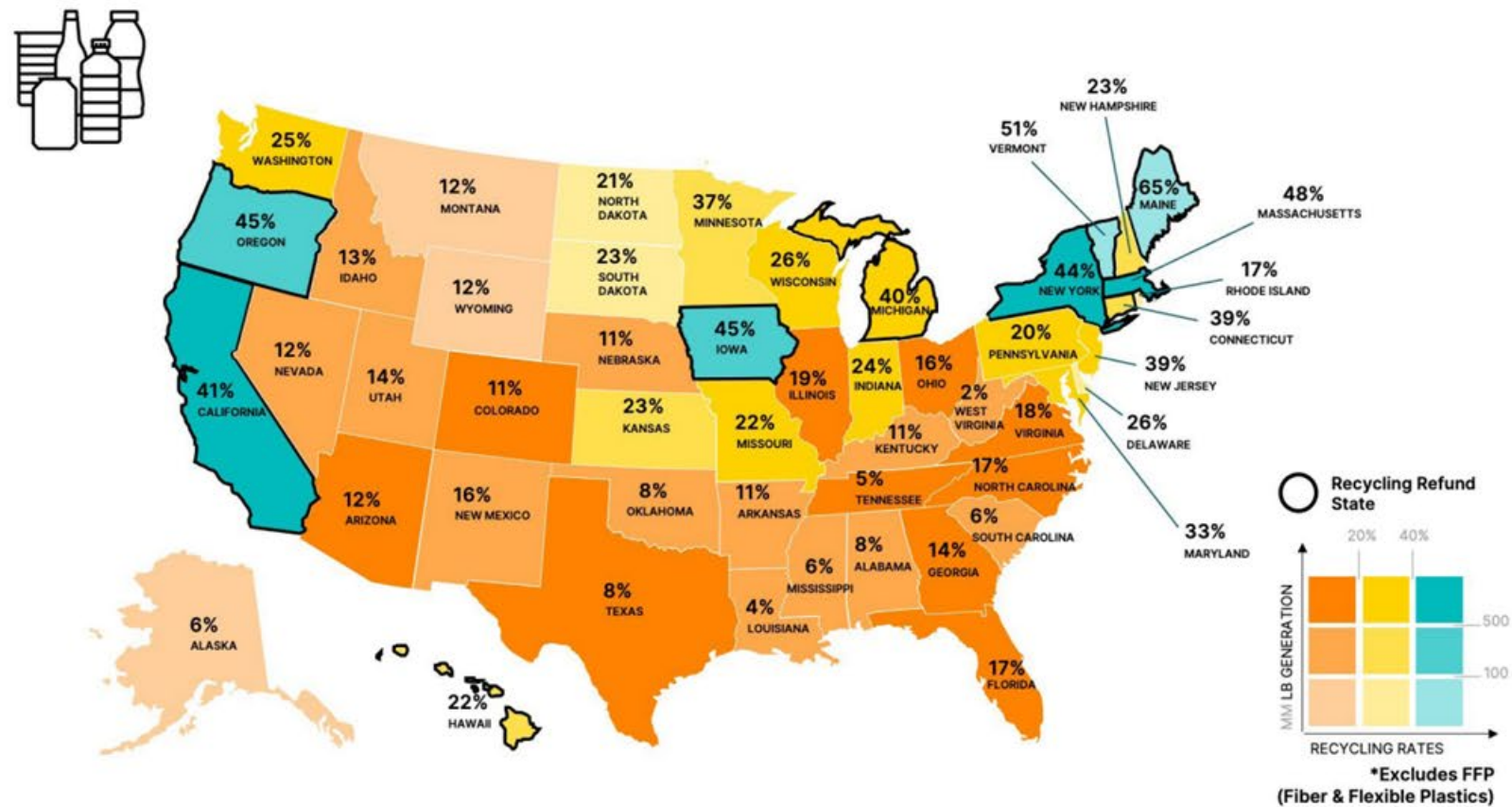
# Extended Producer Responsibility (EPR)

- A policy approach that assigns producers responsibility for the end-of-life of products.
- Can include both financial responsibility and operational responsibility
- Producers are required to provide funding and/or services that assist in managing covered products after the use phase.
- 10 states have introduced legislation on EPR for packaging in 2024.
- 5 EPR packaging bills have passed in the U.S.





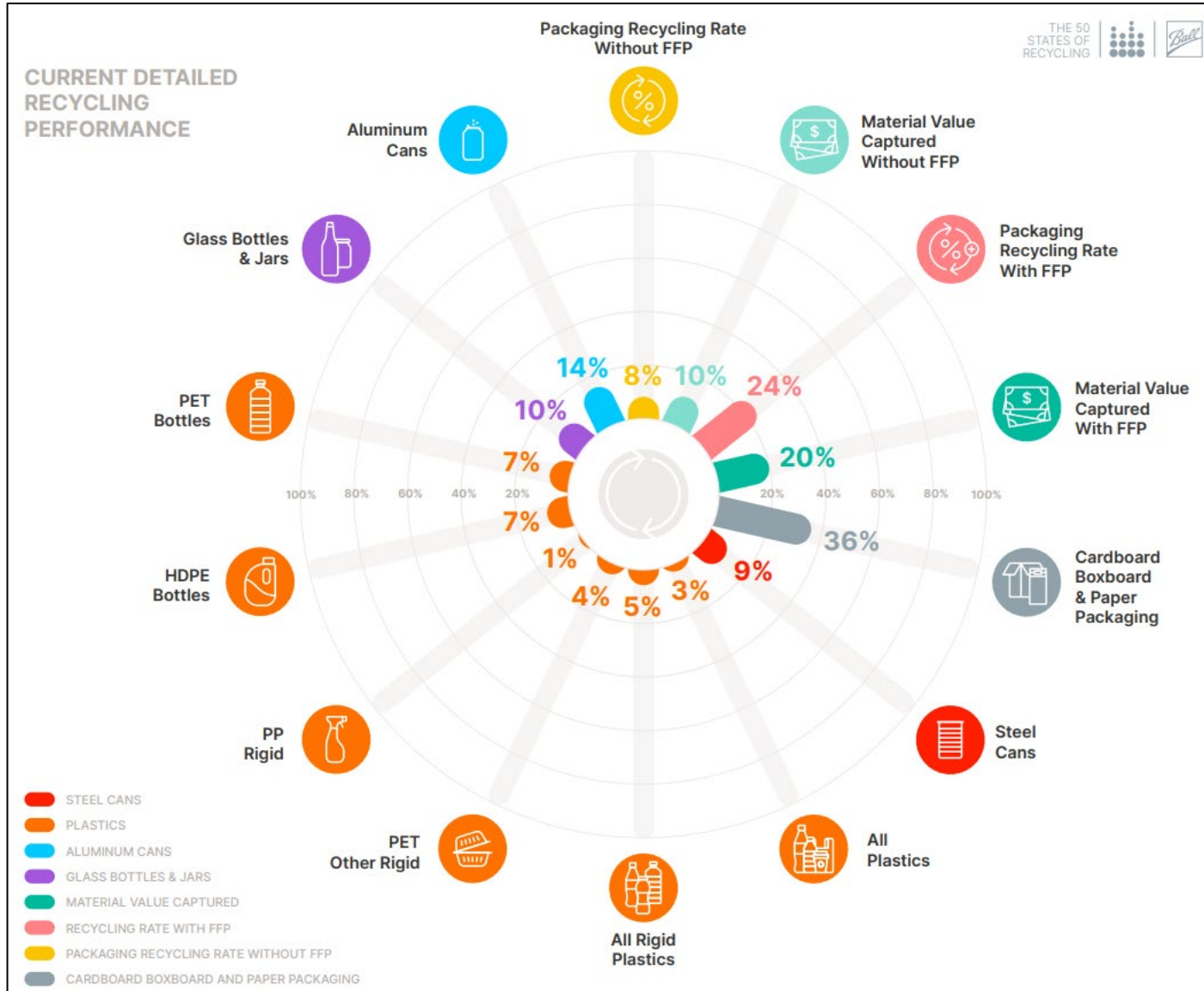
# 50 STATES OF RECYCLING 2023 RANKINGS



RANKING: TOP 10	STATE	RECYCLING RATE	RECYCLING REFUND
#1	Maine	65%	Yes
#2	Vermont	51%	Yes
#3	Massachusetts	48%	Yes
#4	Iowa	45%	Yes
#5	Oregon	45%	Yes
#6	New York	44%	Yes
#7	California	41%	Yes
#8	Michigan	40%	Yes
#9	New Jersey	39%	No
#10	Connecticut	39%	Yes

RANKING: BOTTOM 10	STATE	RECYCLING RATE	RECYCLING REFUND
#41	Colorado	11%	No
#42	Texas	8%	No
#43	Alabama	8%	No
#44	Oklahoma	8%	No
#45	Mississippi	6%	No
#46	South Carolina	6%	No
#47	Alaska	6%	No
#48	Tennessee	5%	No
#49	Louisiana	4%	No
#50	West Virginia	2%	No

# Opportunities in Texas



EPR and bottle deposit returns could together:

- Increase recycling related jobs from 8,900 to 41,100
- Place \$814 million of recycled material back in the market to support a circular economy and reduce the need for virgin material.
- Avoid emissions of 11 million MTCO<sub>2</sub>e annually.





# **Grant Rodriguez Amlani**

Manager,  
Environmental Justice & Recruitment

**U.S. Plastics Pact**

[gamlani@usplasticspact.org](mailto:gamlani@usplasticspact.org)

Challenge  
things  
when  
necessary



Leverage  
your  
expertise



Be  
respectful  
and bring  
a broad  
perspective







# Thank you!

**Alexa Gilbert**

Environment and Development Planner

[agilbert@nctcog.org](mailto:agilbert@nctcog.org)

817-608-2334

**Hannah Ordonez**

Senior Environment and Development Planner

[hordonez@nctcog.org](mailto:hordonez@nctcog.org)

817-695-9215

**Cassidy Campbell**

Program Manager – Environment and Development

[ccampbell@nctcog.org](mailto:ccampbell@nctcog.org)

817-608-2368



Facebook.com/nctcogenv



@nctcogenv



nctcogenv



youtube.com/user/nctcoged



EandD@nctcog.org



nctcog.org/envir