

Adam S. Peer, Sr. Dir., Plastics Division



Topics

- Context
- Why focus on asphalt as a recycled plastics end market?
- What are the key questions for consideration?
- What resources are available?

Plastics Division Sustainability Goals

✓ 2040 Goal

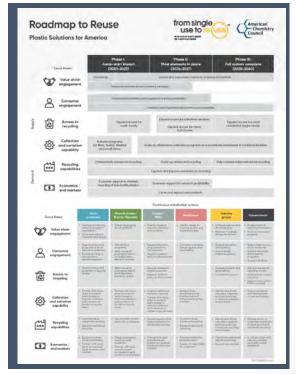
- 100% of plastics packaging is reused, recycled or recovered
- ✓ Interim Goal (2030)
 - 100% of plastics packaging is recyclable/recoverable
- ✓ Best practice goal
 - 100% of Division's U.S. manufacturing sites participate in Operation Clean Sweep Blue by 2020, with all North American sites by 2022



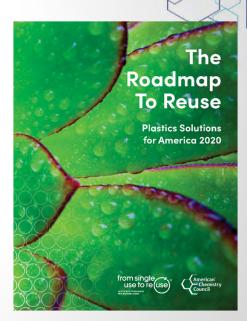
- 100% of plastic packaging will be recyclable or recoverable by 2030.
- packaging will be reused, recycled or recovered by 2040.



Roadmap to Reuse



Plastic Solutions for America Report



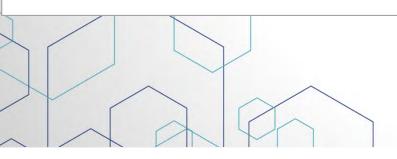


62 Projects \$5.3B

TO DIVERT

3.6 M
Tons of landfill materials

83% of these investments are in the growing field of advanced recycling, which is crucial modern infrastructure needed to accelerate a circular economy for plastics.



Intersection

Sustainability Goals

Available Material

Asphalt

Research

Demonstrations

Demonstration Projects

International

Domestic

India

West Java

United Kingdom

Texas

Michigan

California

Key Questions



Resource Hub

Portal

- Latest research
- Public policy
- •LCA: rPE mixes
- Case studies,
 demonstration projects

LCA: Recycled Content in Asphalt

Cradle-to-Gate dataLCA - ISO 14044: ModelCommons LCA

Recent Example

- Parking lot
- Equal to 71,000 retail shopping bags.
- If scaled in US, asphalt could become a top end market for PE films.

LyondellBasell

Commentary: Plastic bags into parking lots—it's possible

The Plastics Industry Association and partners test a new application for plastic bags through its NEMO project.

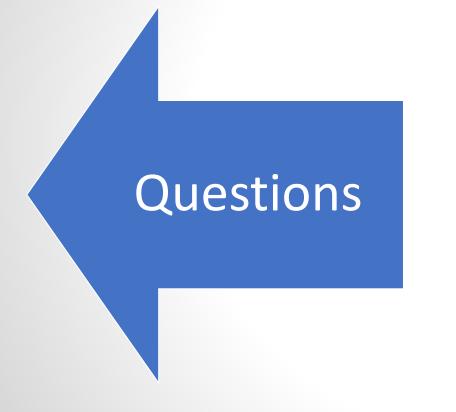


November 15, 2020 Patrick Krieger

Commodities

Municipal Recycling

Feedback



Resource Needed



Adam S. Peer
Senior Director, Packaging
American Chemistry Council
202 249-6616
Adam_Peer@AmericanChemistry.com
Twitter @PeerAdam
LinkedIn adampeer

AdvancingCircularPackaging.com

Works Cited

Buncher, Mark, and Carlos Rosenberger. *Understanding the True Economies of Using Polymer Modified Asphalt through Life Cycle Cost Analysis. Asphalt Institute (Orange Park, FL US: Asphalt Pavement Alliance, 2005).*https://www.asphaltroads.org/assets/_control/content/files/IM029_Understanding%20Economics%20of%20PMA%20Through%20LCC.pdf.

"Dow Working to Turn Discarded Plastics into Roads."
Reimagining Resources, accessed Nov. 16, 2020,
https://www.americanchemistry.com/Sustainability/Circular-Economy-Case-Study.html#Study1.

Dow. "Dow Incorporates Recycled Plastic into Michigan Roads and Parking Lots." news release, 2019, https://www.dow.com/en-us/news/dow-incorporates-recycled-plastic-into-michigan-roads-and-parkin.html.

Eldredge, Barbara. "Uk Startup Uses Recycled Plastic to Build Stronger Roads." *Curbed, Apr. 26 2017.* https://archive.curbed.com/2017/4/26/15428382/road-potholes-repair-plastic-recycled-macrebur.

Hyatt, Kyle. "Los Angeles Is Planning on Testing out Pavement Made from Plastic." *Road Show, 2019.* https://www.cnet.com/roadshow/news/los-angeles-plastic-asphalt-pilot-project/.

Krieger, Patrick. "Commentary: Plastic Bags into Parking Lots—It's Possible." Commentary, Waste Today, Nov. 15 2020. https://www.wastetodaymagazine.com/article/plastics-industry-association-nemo-project-plastic-bags-asphalt/.

Rueckert, Phineas. "India Has Laid 620 Miles of Road Made with Recycled Plastic." *Global Citizen (New York, NY US)*, *July 19 2017.*

https://www.globalcitizen.org/en/content/india-roads-recycled-plastic/.

Willis, Richard, Fan Yin, and Raquel Moraes. *Recycled Plastics in Asphalt Part A: State of the Knowledge. National Asphalt Pavement Association;* Asphalt Institute (Greenbelt, MD US: Oct. 2020).

https://www.cnet.com/roadshow/news/los-angeles-plastic-asphalt-pilot-project/.