Plastic Market Update

Tonya Randell
February 28, 2019
WIRMC
What’s in the Curbside Mix?

- Fiber: 70%
- Plastic: 5%
- Other: 25%
Estimated Breakout of Curbside Collected Plastic

Within 3-7 Rigid & Small Rigid Segment:
- 33% PP containers
- 17% Thermoform containers
- 14% Missed PET/HDPE bottles
Annual Plastic Survey Data

- More Recycling collects data to see what plastics are being recycled in the US and Canada.
- Data includes post-consumer and post-commercial plastics.

\[
\begin{array}{c}
\text{PET} & \text{HDPE} & \text{Non-Bottle Rigid} & \text{Film} \\
24\% & 31\% & 25\% & 20\% \\
\end{array}
\]

~ 6 Billion Lbs. in 2016

Made possible by:
Current Market Conditions

- Oil Prices Steady
- Export Markets Weak (non-existent?)
- Domestic Market Prices are Down
- Economy is Holding Steady
- Growing Brand Commitments/Long-term Sustainability Goals

Equals: uncertainty in plastic recycling markets at the moment, but hopeful future outlook
Plastic Scrap Market Drivers

1- International Policies

2- Material Quality

3- Oil Prices

4- Consumer Demand
Prior to 2018, scrap plastic recyclers depended heavily on foreign markets:
- Canada: 22% exported
- US: 28% exported
- Europe: 50% exported
International Policies

144M pounds exported in Nov 2018, down 43% over Nov 2017 total of 251M pounds exported.
Now there is greater supply than domestic capacity to sort.

Easy exports stymied infrastructure investment to sort mixed plastic bales.
Material Quality

Domestic market standards are higher, and collection programs are faced with greater processing costs.
Material Quality
PET Container Recycling Rate = Room to Grow

Rate up to 29.2% in 2017

Source: Napcor
Material Quality

Good education supports the entire system.

Enforcement for chronic bad recyclers may be required.

Programs like WRAP, Plastic Terms & Recycling Partnership toolkits provide free resources.
Posters, Tip Cards, Bill Inserts, and Flyers Available

RecycleYourPlastics.org/termsandtools

PlasticFilmRecycling.org/customize
Oil Prices

Not enough supply of PCR at the right price and quality levels to compete with virgin resin.

Growing supply of virgin resin has discouraged some infrastructure investments needed to sort and process scrap plastic to the quality needed by end users.
PCR vs Virgin
Pellet Price & Cost Associated to Process Post-Consumer Resin (PCR)

* Color Sorted
** Food Grade

- PCR CHDPE
- PCR CHDPE*
- PCR NHDPE
- PCR NHDPE**
- Virgin HDPE

Cost to Source Bales or Virgin Pellet
Handling & Transport
Processing & Yield Loss
Historical Scrap Plastic and Crude Oil Prices

- Great Recession
- Green Fence
- Shale Gas Revolution

- Oil $/barrel
- Scrap Price $/lb

- Petroleum Engineers (PET) Bottle Average Domestic Delivery
- NH-Density Polyethylene (NHDPE) Domestic Delivery
- All Rigid Plastic Export Delivery
- Bulky Rigid Plastic Export Delivery
- Commercial Clear Film Domestic Delivery
- Mixed Film Domestic Delivery
- Curbside Film Export Delivery
- 3-7 bottles and SMALL Rigid Plastic Export Delivery

- National Sword

- Years: Jan-08 to Jan-19
- Oil Price: $/barrel
- Scrap Price: $/lb
Without growth in demand for PCR, we will continue to see loss of recycling access for non-bottle materials.

>130 million pounds of postconsumer containers and other rigids are being landfilled, just in CA.
Loss of Recycling Access

Plastic water bottles and clamshell containers are now trash

In addition, plastic water bottles and plastic hinged-lid (clamshell) containers must now go into the trash cart. The local sorting facility doesn’t have the equipment to process these items properly. Water bottles and clamshell containers flatten in the sorting process and end up in the paper stream lowering the quality of recycled paper and making it harder to sell.
Consumer Demand

More companies will use PCR when more consumers ask for it.

Consider the purchases you make both at home and work, and not just for plastics.
Buy Recycled Products Directory
RecycleMorePlastic.org

Find products made from post-consumer plastic resin
New Products Added Regularly
Businesses are Consumers, too
### Connect with Recycled Plastics Buyers and Suppliers

#### Search Results

**Search:** recyclers

<table>
<thead>
<tr>
<th><strong>Buyer or Supplier</strong></th>
<th><strong>Resin to search</strong></th>
<th><strong>Sources to search</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer</td>
<td>ABS, Acrylic, HDPE, HDPS, LLDPE, Mixed, Nylon, Other, PC, PE, PET, PP, PPE/PP (olefin)</td>
<td>1-7 ALL Rigid Plastics, 1-7 Bottles and SMALL RIG...</td>
</tr>
<tr>
<td>Supplier</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Displaying 90 results. Page 1 of 4.**

**Avangard Innovative, LP**
- **11906 Brittmoore Park Dr**
- **Houston, TX 77041**

**Blue Ridge Plastics**
- **11511 Hwy. 770 East**
- **Eden, NC 27288-1243**

**Champion Polymer Recycling**
- **2600 Corporate Dr**
- **Winston-Salem, NC 27103**

**Contact**
- **Avangard Innovative, LP**
  - Phone: 281-582-0700 x222
  - Email: jstephens@avang.com
- **Blue Ridge Plastics**
  - Phone: 336-289-8850
  - Email: dpyrtle@blueridgeplastics.com
- **Champion Polymer Recycling**
  - Phone: (855) 745-5782
  - Email: pnunthrapakorn@infiltratorsystems.net

**Clean Tech Inc**
- **Contact:** Tom Busard

**Get Listed**
New Tools!
Recycling Support Activity Info Exchange

Information Compiled:
• History & Key Elements of Recycling Market Development
• Examples of Public & Private Programs & Tools (in map view with search filters)
• Effective Roles & Strategies — Looking Forward
Recycling Support Activity Info. Exchange

The Info. Exchange will provide a roadmap to help stakeholders implement appropriate and effective recycling market development programs and projects.

- Promotion
- Technical Support
- Financial Support
- Regulation
New Tools!
Impact Tracker

Creating Transparency, Recognizing Leaders, & Illustrating Impact

Dashboard Portal To:
- Buy Recycled Directory (Access to products for consumers and organizations)
- Directory of PCR Suppliers
- Markets for Baled Plastic
- Interactive Case Study Tool (Can be modified for materials beyond film)
- PCR Impact Tracker (CO2 Savings Equivalent)
New Tools!
Generation Tracker Tool

Working with Cascadia and other partner orgs (RILA, NACS) to gather more audit data from commercial generators
Questions?

Tonya Randell
Tonya@MoreRecycling.com