School of Government Solid Waste Finance Course: Recycling Markets Overview

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Recycling Material Markets

- Recycling markets generally follow the economy.
- Global appetite for materials shifting to recovered commodities; export markets are an integral part of the picture.
- Energy prices also affect markets – especially for plastics.
- Some markets are local or regional in nature – e.g., organics and shingles.
- Market efficiency depends on the cost-effective flow of small volumes into larger volumes.
- In general, infrastructure and market value are improving over time, but fluctuating commodity cycles should be expected.
Observations on Traditional Materials

- In the early days of recycling, markets were under-developed and payment of processing fees was “normal”
  - Now, general market and commodity conditions have improved enough to eliminate paying to process.
  - The “basket” of materials has enough consistent value for possible revenue sharing – with important caveats.
- In the early days, communities led the development of processing infrastructure.
  - Now, processing infrastructure is largely privatized and heading more that way
  - Private processing infrastructure is also fairly competitive, offering shopping opportunities for local governments.
History of Fiber Prices Since 1996
Fiber Prices Since the Recession

$/ton

- Newsprint
- Cardboard
- Office Paper
- Mixed Paper
History of Aluminum, PET and HDPE Prices (per .lb) since 1996
Composite Container Prices Since 1996
Container Prices Since the Recession

$/pound

- Aluminum
- PET
- HDPE - Natural
Your Relationship With MRFs

- New paradigm for bids/market relationships:
  - MRF cost coverage, then possible share
- Fixed vs float
- Set it and forget it
  - Focus attention on efficiency, material quality
- Your residue hurts your relationship
### MRF Costs, Material Values, “Shareable” Revenue

**MRF Processing Baseline:** $70/ton

<table>
<thead>
<tr>
<th>% of 1 MRF ton</th>
<th>Summer 2011</th>
<th></th>
<th>Summer 2012</th>
<th></th>
<th>Summer 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Price/ton</td>
<td>Value</td>
<td>Price/ton</td>
<td>Value</td>
<td>Price/ton</td>
</tr>
<tr>
<td><strong>Fiber Materials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ONP</td>
<td>34.14%</td>
<td>$146.00</td>
<td>$85.00</td>
<td>$73.33</td>
<td>$25.03</td>
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<tr>
<td>Mixed Paper</td>
<td>16.66%</td>
<td>$155.00</td>
<td>$86.00</td>
<td>$68.67</td>
<td>$11.44</td>
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<tr>
<td>OCC</td>
<td>11.26%</td>
<td>$183.00</td>
<td>$120.00</td>
<td>$139.00</td>
<td>$15.65</td>
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<tr>
<td><strong>Fiber Sub-total</strong></td>
<td></td>
<td><strong>$96.27</strong></td>
<td></td>
<td><strong>$56.86</strong></td>
<td><strong>$52.13</strong></td>
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<tr>
<td><strong>Container Materials</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Glass</td>
<td>27.16%</td>
<td>$16.00</td>
<td>$16.00</td>
<td>$16.00</td>
<td>$4.35</td>
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<tr>
<td>Aluminum Cans</td>
<td>0.86%</td>
<td>$1,820.00</td>
<td>$1,440.00</td>
<td>$1,440.00</td>
<td>$12.38</td>
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<tr>
<td>Steel Cans</td>
<td>2.44%</td>
<td>$273.00</td>
<td>$137.00</td>
<td>$170.00</td>
<td>$4.15</td>
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<tr>
<td>PET</td>
<td>3.78%</td>
<td>$600.00</td>
<td>$320.00</td>
<td>$360.00</td>
<td>$13.61</td>
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<tr>
<td>HDPE (colored prices)</td>
<td>2.05%</td>
<td>$360.00</td>
<td>$420.00</td>
<td>$360.00</td>
<td>$7.38</td>
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<tr>
<td>Mixed Plastics</td>
<td>1.31%</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$1.31</td>
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<tr>
<td>Cartons/aseptics</td>
<td>0.29%</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$0.29</td>
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<tr>
<td><strong>Container Sub-total</strong></td>
<td></td>
<td><strong>$58.32</strong></td>
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<td><strong>$42.38</strong></td>
<td><strong>$43.47</strong></td>
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<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$154.59</strong></td>
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<td><strong>$99.24</strong></td>
<td><strong>$95.59</strong></td>
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<tr>
<td><strong>Shareable Portion</strong></td>
<td></td>
<td><strong>$84.59</strong></td>
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<td><strong>$29.24</strong></td>
<td><strong>$25.59</strong></td>
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</tbody>
</table>
“Basket” Price of Traditional Material Values

Other Aspects of MRF Access

- For counties/others far from MRFs:
  - Your revenue share can cover transport
  - Use of transfer options

- For municipalities/others using collection contractors:
  - Contractor access to shared revenues affects your pricing.

- General questions to keep in mind:
  - who delivers to MRF?
  - how far?
  - what kind of delivery?
Economics of Some Non-Traditional Materials

• Materials that pay:
  – Used cooking oil
  – Cell phones
  – Used motor oil
  – Separated OCC (with caveats)
  – Shingles?

• Materials that can be cheaper to manage using state contracts:
  – Lights containing mercury (fluorescents)
  – Electronics
Conclusion: General Guidance on Traditional Material Marketing

- Marketing of materials is a partnership.
- Marketing exposes governments to risk/reward.
- Expect and plan for $0 when budgeting.
- “Make money” by focusing on operational efficiency – *make it by saving it*.
- Where and when feasible, pursue revenue-sharing that is fair and long-term in thinking.
- Use material revenues for accelerating capital purchases or special efforts to enhance recovery – *not* for covering ongoing operational costs.
- Use savings to enhance recovery – e.g., human resources with new time on their hands.
Questions?

Thank you!

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