October 20, 2019

Todd Kaminsky
Member of Senate
Chair, Environmental Conservation Committee

Steve Englebright
Member of Assembly
Chair, Environmental Conservation Committee

NYS Legislature Public Hearing on Recycling Issues
October 21, 2019; 11:00 AM
250 Broadway, Senate Hearing Room 250 Broadway, 19th Floor, Manhattan, NY

Introduction
Chairman Kaminsky, Chairman Englebright and members of the Committees on Environmental Conservation, thank you for the opportunity to testify before you today. My name is Chuck Riegle, and I am the SVP for Government Affairs & Compliance for TOMRA Americas.

I understand the purpose of today’s hearing is to examine various recycling issues, including the status of recycling markets and the implications of China’s market restrictions.

For years recycling programs could rely on China to accept an extensive range of used packaging and other materials as a secure market. That changed in 2018 when the country imposed a sweeping ban on importing a broad spectrum of waste materials, including many plastic resins, textiles, unsorted papers and more. This move was prompted by an embarrassing expose calling-out China as a dumping ground for international waste, and their own desire to develop their internal recycling markets. While the reverberations of this action, plus the Basel Convention have been felt across the globe, the turnabout presents the United States with a rare opportunity to recover and then recycle materials through local manufacturers.

Waste management practices are primed for disruption. So how do we demand more pragmatic action from businesses, the citizenry and municipalities. Appealing to social responsibility will convince a certain percentage of people to participate, but comprehensive buy-in requires a fundamental change of perspectives, policies and practices. What’s required now is the political, commercial and social will to embrace this vision.

Any vision of a “circular” world, where resources remain resources, requires a re-think of our collection and sorting systems. It’s at this preliminary stage that vast improvements could be made to better direct materials within the value chain to keep them as clean and valuable as possible.

About TOMRA Systems
TOMRA creates technology for companies to optimize their recovered materials production processes, and in the case of the deposit-return system – we are an operator. Our global presence and working experience in the United States, European and Asia gives us a unique perspective on the impacts of China’s market restrictions in various markets – as well as best practices that could help sustain New York’s recycling efforts going forward.

About TOMRA in New York
In New York, TOMRA provides AI and infrared-powered sorting technology to municipal recycling facilities including the SIMMs facility in Brooklyn that handles much of the City’s curbside-collected packaging and paper. We also provide Reverse Vending technology to provide convenient, cost-effective and secure container redemption systems for consumers, grocers and beverage companies. In addition, in the Northeast we provide

www.TOMRA.com
much of the back-end services that keep container deposit systems running, from clearing the exchange of deposits and handling fees to picking up, processing and brokering recyclables. This includes a partnership with beverage distributors in upstate New York called TOMRA New York Recycling, and a PET plastics reclamer UltrePET in Albany. TOMRA employs 336 people, including 5 processing facilities in New York State.

Technology and Services Provide by TOMRA in New York

The legislature has an opportunity to set new principles, targets and responsibilities for ‘recycling’ which foster a circular economy. We support New York committing in statute principles and policies which address the waste pollution crisis and support sustainable ‘circular’ recycling models. And believe that such actions will align stakeholders and draw investment to implement the mission.

1) The European Union’s Circular Economy Package and Single-Use Plastics Directive will prove useful resources for New York. Europe, like the United States was also ‘shut-off’ by China, but by having established targets and assigned financial responsibilities, the response to invest in better quality processing was immediate. Set a ‘recycling rate’ for each material type considering the European Commission’s recently amended definition of recycling which defines recycled material as that which is the output of a recycling sorting operation (not the input). Measuring what is collected through curbside recycling and drop-off programs is a measurement of ‘diversion’. In other words, count those materials which are used by manufacturers. For reference – the EU’s new targets:

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</thead>
<tbody>
<tr>
<td>Municipal Waste1</td>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
</tr>
<tr>
<td>Construction &amp; demolition waste (non-hazardous)</td>
<td>70%</td>
<td>by end of 2024 - 1C to set new targets</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Food waste reduction (non-binding EU target)</td>
<td>N/A</td>
<td>30%</td>
<td>50%</td>
<td>N/A</td>
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<table>
<thead>
<tr>
<th>b) Packaging and Packaging Waste Directive2</th>
<th>Current</th>
<th>End 20253</th>
<th>End 20303</th>
</tr>
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<tbody>
<tr>
<td>Overall target</td>
<td>55%</td>
<td>65%</td>
<td>70%</td>
</tr>
<tr>
<td>Plastics</td>
<td>22.5%</td>
<td>50%</td>
<td>55%</td>
</tr>
<tr>
<td>Wood</td>
<td>15%</td>
<td>25%</td>
<td>30%</td>
</tr>
<tr>
<td>Glass</td>
<td>60%</td>
<td>70%</td>
<td>75%</td>
</tr>
<tr>
<td>Paper &amp; cardboard</td>
<td>60%</td>
<td>75%</td>
<td>85%</td>
</tr>
<tr>
<td>Metal</td>
<td>50% (metal)</td>
<td>70% (ferrous metals)</td>
<td>80% (ferrous metals)</td>
</tr>
<tr>
<td>Aluminum</td>
<td>-</td>
<td>50%</td>
<td>60%</td>
</tr>
</tbody>
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<thead>
<tr>
<th>c) Single-use Plastics Directive</th>
<th>2025</th>
<th>2029</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate collection of beverage bottles</td>
<td>77%</td>
<td>90%</td>
<td></td>
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<thead>
<tr>
<th>d) Landfill Directive</th>
<th>2035</th>
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<tbody>
<tr>
<td>Landfill reduction</td>
<td>10% or less5</td>
</tr>
</tbody>
</table>

2) FOCUS ON PRODUCING QUALITY COMMODITIES FOR RECYCLING. In terms of the state of New York’s recycling markets I can say that the material collected through the container deposit program maintains its market value throughout the process. The materials can be used again and again, in a continuous, circular
loop. While some recyclers may have had difficulties in finding buyers for post-consumer recyclable material - we have not. For example, while some towns in New York have ceased to collect glass for recycling, the deposit-system is able to sell 100% of the glass collected to New York-based container manufacturers (key to reducing greenhouse gas emissions).

Optical sorting technology empowers material recovery facilities and recyclers to maximize the quality of their materials, so these too can hold their value for recycling.

3) **TOMRA believes that: Deposit-Return and Curbside collection are complimentary systems.**
   Considering these systems in a complimentary way might shift us from debate towards a circular economy. Curbside collection successfully engages many homeowners, encouraging the recycling of a variety of packaging and papers. The growing trend towards away-from-home consumption, especially noticeable with beverage packaging, often means that a significant proportion of this package never makes it into a curbside system. This combination helps capture litter, supports re-use and guarantees the highest recycling quantity & quality. Glass beverage containers would be a relevant package to consider in this light.

4) **New York’s Deposit-Return law needs to be ‘modernized’ because it is not living up to its potential.** The bills proposed in 2019 to ‘modernize’ it are timely and put focus on many parts which require amendment. Considering learnings from both high and lower-performing deposit-return systems, any changes should consider how it:
   - Serves the program’s target
   - Engages the public in a meaningful way
   - Makes it as easy for the public to redeem containers as they purchased beverages
   - Compensates both Retailers and Redemption Centers for the services they provide
   - Removes the chance for fraud by increasing accounting controls
   - Clarifies administration of the system
   - Harmonizes with other states where possible
   - Preserves material quality to supply a circular economy
5) **Invest in ‘Quality Recycling’**. European operators and EPR programs were able to respond quicker to these same market challenges. In the absence of EPR, consider establishing a technology fund. Dedicate investments to those which enable ‘quality recycling’. Will ensure both ‘circularity’ and financial discipline.

6) **Incentivize or mandate minimum recycled-content for packaging**. This can help drive the economics and close the loop. Minimum recycled content mandates offer the reassurance of stability to the wider community of producers and recyclers, while also kindling creativity and innovation in product design. Research the EU’s statute, and California’s proposals for further reference.

We are deeply committed to doing business in New York State and building upon our well-established partnerships with all stakeholders. Please feel free to use us as a resource of information, especially as it relates to how other markets are approaching the impacts of China’s restrictions and how New York can implement policies that encourage more effective recycling.

Thank you,

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**TOMRA COLLECTION SOLUTIONS**: With an installed base of approximately 83,000 systems in over 60 markets, **TOMRA Reverse Vending** is the world’s leading provider of reverse vending and clearinghouse solutions. Every year TOMRA facilitates the collection of more than 40 billion empty cans and bottles and provides retailers and other customers with an effective and efficient way of collecting, sorting and processing these containers. TOMRA’s material recovery business includes the pick-up, transportation, and processing of used beverage containers in North America, as well as the subsequent brokerage of the processed material to recyclers. The revenue stream in this business area is derived from fees received from bottlers based on the volume of containers processed. Currently, **TOMRA Material Recovery** processes over 340,000 metric tons of containers annually.

**TOMRA SORTING SOLUTIONS**: **TOMRA Sorting Solutions** creates sensor-based technologies for sorting and process analysis within the recycling, mining, food and other industries. **TOMRA Recycling** is a global leader in its field and has pioneered the automation of waste sorting. Its flexible sorting systems perform an extensive range of sorting tasks and can both prepare and sort various types of metals and waste for either material recycling or energy recovery. Currently **TOMRA Sorting Recycling** has an installed base of close to 5,960 units across more than 40 markets.

**Chuck Riegle**: For 28 years, 18 of them with TOMRA, Chuck has worked in both the public and private sectors of the recycling industry. Through work as a Senior Leadership Team member for the Americas, and director positions with ENGOs like GreenBlue, Chuck promotes innovative recycling practices and policies which strive to increase collection and quality. Prior to TOMRA, Chuck worked for the City of Norwalk, Connecticut as its Recycling & Solid Waste director launching curbside and other collection programs in the 1990’s.