JOINT LEGISLATIVE COMMISSION TO STUDY AND PROVIDE RECOMMENDATIONS TO PROTECT OUR ENVIRONMENT AND NATURAL RESOURCES FROM PLASTIC BOTTLE WASTE

DEM
RHODE ISLAND

Presentation by:

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1. **Trends and Incentives**

Current Initiatives – Policy efforts are active at all levels of government and today I'd like to highlight just a few with an update to the report provided earlier this year.

- **Global –** In 2022 the United Nations Environmental Assembly in 2022 passed a resolution to end plastic pollution and to create an international legally binding agreement by 2024. The committee has met twice and is meeting in Nairobi, Kenya next month. As of October 1, the Chair of the INC has created the "zero draft text' and this its review is a major thrust of the third of five meetings. This has the opportunity to set in motion global efforts related to plastic.

- **National –** Spearheaded by the Environmental Protection Agency, numerous efforts are underway that align with the efforts in Rhode Island. The National Recycling Goal was established in 2020 to increase national recycling rates to 50% by 2030 and a Strategy established in 2021 with five objectives to achieve the goal. The EPA 2022-2026 strategic plan furthers these efforts with a national plan to prevent plastic pollution. DEM is an active member of the Environmental Council of States and the Association of State and Territorial Solid Waste Management Officials and both organizations are working with States to implement the EPA National Recycling Strategy.

- **Regional –** Efforts in our region are underway with organizations such as the Northeast Waste Management Officials Association and the Northeast Recycling Council. DEM and RIRRC actively participate in information exchanges with these regional partners. In April of this year NEWMOA and NERC hosted a joint webinar that features the Oregon Bottle Bill and their Recycling Modernization Act. I'd be happy to share that presentation with you all and I'll touch upon it on future slides today.

- **State –** DEM was recently awarded a grant from the Environmental Protection Agency through the Solid Waste Infrastructure for Recycling (SWIFR) program. It is our intent to use this grant to update Rhode Island's Comprehensive Solid Waste Management Plan a guide plan for the State that protects and restores Rhode Island's invaluable natural resources. As Jared pointed out the waste characterization of the material entering the Central Landfill, provide an excellent opportunity for a holistic view and comprehensive approach for shaping our future action.

Development of PCR Markets - Post-consumer recycled (PCR) minimum content requirements in new finished products can be a legislative option that supports the development and expansion of markets by increasing the demand on recycled feedstock and mobilizes the market forces to capture more material (via curbside recycling, deposit return systems and EPR efforts). As an example, California signed into law AB793 in 2020 that requires postconsumer plastic recycled content standard of 50 percent by 2030. While the primary goal is to improve the market for recycled plastic by increasing the demand, it also lessens the usage of virgin plastic made from fossil fuels and aligns with the Act on Climate goals for Rhode Island.

Recycling Content Technologies – The process of consumers putting used finished products into the circular economy that enables recycled content technologies has many steps and I'd like to share some baseline information for understanding the costs and practicalities of recycled content technologies. The process starts with collecting the vast amounts of used finished products and sorting the material. The baled commodities are sold on the open market and are dependent on global market forces not limited to the price of virgin plastics that are linked to global crude oil and natural gas prices. Purchased baled commodities then must undergo a series of processes to remove additives and impurities to create a comparable feedstock to virgin material. Depending on the type of plastic and post-processing, some plastics are downcycled such as plastic bottles becoming decking at homes or park benches or used in carpet manufacturer. While these are viable additional uses, often times it their last use before becoming waste. I don't want to simplify this topic, there are many variables, obstacles and also opportunities.

Procurement Practices and Incentives – The Senate passed resolution S0015A in 2023 requesting the Department of Administration to provide a report that includes plastic pollution, procurement practices, including the replacement of plasticware with biodegradable and compostable alternatives at state facilities; Phasing out single-use plastic water bottles by creating access to potable water through bottle fill stations or other available measures; and providing compostable bins at state facilities, and to develop guidelines for contracts that limit or prohibit the purchase or use of Styrofoam, plasticware, and single-use plastic water bottles. This report will provide an excellent opportunity to explore procurement practices, that tie in nicely with the points mentioned previously about development and expansion of markets for post-consumer recycled plastics. Also, incentives for in-state end use of recycled materials will rely on defining those incentives and also creating the ability for bulk purchases to achieve economies of scale that result in unit costs that are comparable to finished products made with virgin raw materials.

2. **Opportunities for modernization**

Parties inquired with DEM about recycling laws that had been on the books for several decades, and the department took a closer look at recycling statutes within Title 23 and identified several statutes approved in the preceding decades which warrant further discussion and decided to bring these laws to the attention of the commission here.

RIGL 23-18.12 the "Beverage Container Recyclability" – The department identified RIGL 23-18.12 the "Beverage Container Recyclability" statute from 1989. This required a 50% recycling rate for beverage containers that transacted in the State and will this is not enforced, this particular statute is an excellent candidate to transform into a "post-consumer recycled content" statute that would become a driver to increase recycled content in all plastic products.

RIGL 23-18.15 the "Plastic Bottle and Container Labeling Act" - The department identified RIGL 23-18.15 the "Plastic Bottle and Container Labeling Act" from 1990. This required labeling plastics as types 1 through 7 and in 2008 was amended to request RIRRC to review the impact of a nickel deposit on bottles, the study led to single-stream recycling as an alternative. While DEM has not promulgated regulations labeling plastics, many other states in the 1990's advanced similar legislation and the industry is following this labeling mandate. An outcome of a bottle bill will require that bottles are labeled with "customer redemption value" or CRV and will provide an opportunity to address all labeling requirements.

RIGL 23-38 the "Degradable Connectors and Non-Detachable Metal Openers for Beverage Containers" - The department identified RIGL 23-38 the "Degradable Connectors and Non-Detachable Metal Openers for Beverage Containers" from 1987. With similar findings as the prior statute, the opportunity that exists with modernizing this statute is to address the regulations of new materials related to biodegradability, compost ability, and bioplastics.

Title 21, Chapter 27 the "Plastic Recycling and Litter Act" - Lastly, the department identified within Title 21, Chapter 27 the "Plastic Recycling and Litter Act" from 1988. The good news is that the prohibition of disposal food service containers that contain chlorofluorocarbons is further expressed via the recent law to prohibit polystyrene in food service containers. The statute also created a permanent commission to focus on recycling, materials that cannot be recycled, and to develop guidelines for biodegradable products. While an initial appointment was made in 1990, no additional records are available. While this statute is over 30 years old, these topics of recyclability, non-mechanical recycling, and biomaterials is very applicable to current issues, and it is suggested for consideration that this newly formed commission consider creating a permanent commission.

3. **Building blocks**

This joint legislative session to study and provide recommendations will benefit from having a foundation of terminology, principles. With these building blocks in place, the commission will be able to lay a foundation and create a roadmap to protect our environment from plastic bottle waste. Before sharing an update on bottle bill performance across the country, I'd like to present two slides to build a foundation for all of us, starting with terms and principles that are applicable to many material managements solutions. There are varying definitions for these three terms but generally speaking…

Product Stewardship – Or PS, is an environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimizing the product's environmental impact throughout all stages of the products' life cycle, including end of life management. Usually this is a framework that is builds on the principles of producer responsibility, shared responsibilities, governance, financing, and environmental protection. Product Stewardship is more of a framework than an actual policy enabled by legislation.

Extended Producer Responsibility – Or EPR, this is an environmental policy in which a producer's responsibility for a product is extended to the post-consumer stage of a product's lifecycle. Usually, an EPR policy has the characteristics that it shifts the responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities; and the provision of incentives to producers to consider environmental considerations when designing their products. EPR is different from policies that tend to target a single point in the supply/value chain and expands the policy footprint outwards in many directions.

Product Stewardship and Extended Producer Responsibility are often used interchangeably to describe a robust solution for material management solutions that shifting responsibility away from the consumer and municipalities to the various entities that are producing, collecting, transporting, and ultimately putting the product into the marketplace.

Producer Responsibility Organization – Or PRO, and occasionally referred to as a Third-Party Organization (TPO) or Stewardship Organization (SO) is used to describe a not-for-profit corporation or organization that is appointed by a producer to act as an agent on behalf of the producer to administer a product stewardship program to achieve the Extended Producer Responsibility Policy.

RI EPR Laws – To ground these topics into some efforts locally here in Rhode Island, I've listed here four types of materials are covered by Rhode Island General Law that requires Extended Producer Responsibility, the date created, the enabling statute, and the producer responsibility organization. It is common and should be pointed out that continuous improvements to the laws, EPR policies and operations of PRO's is essential for the necessary modernization to protect the environment. Mercury for example was recently amended in 2023 to prohibit the sale of most compact fluorescent light bulbs, and the types of electronics that exist today as compared to 2006 is no longer just computers and television, we now have an abundance of various music players, DVD players and recorders, video game consoles, video cameras and much more.

National EPR Laws – Across the country there are dozens of states that have numerous EPR laws and the newest legislation that is being put into regulatory framework is EPR for Packaging. These laws now exist in Maine, Oregon, Colorado, and California and are closely being watched.

4. **Bottle Bill Building Blocks**

Now that we have a basic understanding of the building blocks of extended producer responsibility, now is a good time to look at one form of EPR which is long-standing called a bottle Bill.

Terminology – Bottle Bill, Container Deposit Law, Deposit Return System, Recycling Refund are used interchangeably. Bottle Bill is the oldest term that is used to describe this form of EPR and will resonate the most across the decision makers and stakeholders, but Deposit Return System and Recycling Refund are newer terms that try to describe the system in terms of the action/result with a consumer focus that the "deposit" is "returned/refunded" to the consumer. The challenge with all three of these terms is that it diminishes the crux of the definition of EPR and puts the focus solely on the material being managed (bottle) and the action/result of the consumer.

Supply Entities – Building on the definition of Product Stewardship and EPR, there are several logistical entities that comprise the value/supply chain for supply side of the system.

> **Manufacturers** are typically the entity that owns the name and brand and recipe for a product, such as Pepsi or Coca Cola.
> **Bottlers** are often a separate entity that uses that recipe to fill containers with the liquid.
> **Distributors** are the entity that coordinates and/or performs the routing and transportation of the filled containers (bottles) to the retailers.
> **Retailers** could be liquor stores, convenient stores, grocery stores, restaurants, or bars. Any place that purchase bottles with the intention to sell to a consumer.

Return Entities – This term isn't used too often in publication, but it has a clear distinction of what happens AFTER the bottle is emptied, so the concept should be clear.

> **Self-Serve Returns** are machines, sometimes called "reverse vending machines" that allow consumers to return bottles to collect their deposit
> **Bag Programs** allow consumers to return of bag of bottles and their deposit is credited to their account, this eliminates the need for handling each bottle
> **Redemption Centers** are physical locations that allow consumers to return bottles for their deposit. They are usually stand alone, staffed, and host self-serve returns and bag programs
> **Retailers** themselves can also be redemption centers with a mix of self-serve return machines or bag program

I don't want to short-change the return entities, but in the spirit of time I'll summarize that after the bottles are collected, they find their way into the recycling stream. As mentioned, a few minutes ago talking about recycled content technologies, the bottles are collected, sorted, baled, sold, purchased, clean and undergo recycling processes to create feedstock that is used to create new bottles. It should be pointed out that Aluminum and Plastic follow this logistical path, however glass has the opportunity to be collected, sold, purchased, washed, and put directly into use, just like it was done with beer and soda decades ago and still occurs today with home milk delivery services.

Financials – It is common to talk about the finances first, but the entities involve create the necessary framework of how the financial transactions takes place.

> **Deposit Initiation –** A retailer buys a beverage from a distributor and pays a deposit for each container. The consumer pays the deposit to the retailer when purchasing the beverage
> **Deposit Redemption –** A consumer returns the container to a retailer or redemption center, and they receive a refund or "claimed deposit", and retailer recoups the deposit from the distributor
> **Handling Fee –** Additional funds provided to retailer or redemption center to cover the costs of handling the containers. Handling fees vary within each program
> **Unclaimed Deposit –** Remaining funds with the distributor for beverage containers that consumers fail to return for the refund

Factors/Constraints – There are numerous topics to consider when exploring a Deposit Return System.

> **Covered Products –** What type of products are included/excluded?
> **Space –** Redemption of covered products require space for receiving, processing, storing, and shipping
> **Equipment –** Redemption processes require some form of equipment
> **Sorting –** In some programs the redemption center must sort the bottles by distributor to receive their refund

Similar to other messages today, I don't want to short-change the return process, but after the beverages containers are returned to the distributor the complete recycling stream starts.

5. **Bottle Bills in the United States**

A quick history of the evolution of bottle bills – The first bottle bill was passed in Vermont in 1953. However, it did not institute a deposit system. It merely banned the sale of beer in non-refillable bottles and the law expired a few years later. In 1971, Oregon passed the first deposit return system in the United States, requiring refundable deposits on all beer and soft drink containers. By 1986, ten states (over one-quarter of the U.S. population) had enacted some form of deposit return system.

Bottle Bill Facts – Thank you to the resources from Tomra Corporation (2021 data) and Container Recycling Institute (2022 data), the graphic illustrates characteristics and metrics for the ten states with bottle bills. As shown, return rates vary significantly from state to state along with their deposit values, covered products, and handling fees. These variations create requirements for the state agency providing regulatory oversight, the producer responsibility organization executing the program, and the industry required for labeling. However, these variances are all within the tight scope of an EPR program for beverage containers.

Here are a few highlights of recent legislation efforts.

- **Maine –** Passed LD134 to increase the handling fee from 4.5 cents to 5.5. cents in May, and then up to 6 cents in September. This provided much needed relief for their local redemption centers. Passed LD1909 for a complete modernization of their program a few key points are (1) eliminated brand-level sorting at redemption centers, (2) Created a "commingled cooperative" to guarantee timely pick-up of and payment for redeemed beverages, and (3) Redirect unclaimed deposits to be used exclusively to support and improve the program, and (4) to promote the use of reusable and refillable containers with washing facilities and education and outreach of the benefits of refillable containers.
- **California –** Passed SB353 to update the formula used for processing payments to redemption centers and expand the list of covered products to include 100% fruit and vegetable juices.
- **Massachusetts –** With a 2023 redemption rate of 38% and perhaps the lowest in the country, a bill was introduced to consider updating the deposit amount from a nickel to a dime and add more covered products. The Massachusetts program is 40 years old.