

Task Force to Study Methods for Reducing Consumer Packaging that Generates Solid Waste

Wednesday, June 21, 2017

**12:00pm in Room 1A of the Legislative Office Building
Hartford, Connecticut**

Task Force Member Attendees:

- Victor Bell, co-chairman
- Will Flower, co-chairman
- Alexandra Beaudoin
- Scott Cassel
- Tom Metzner
- Hap Perkins
- Wayne Pesce
- Katie Reilly
- Edward Spinella

Staff Attendees:

- Ussawin Robin Bumpen, Committee Clerk

Invited Speakers:

- American Institute for Packaging and the Environment, Jeff Wooster, President
- American Chemistry Council, Craig Cookson, Director of Sustainability & Recycling, Plastics Division
- American Chemistry Council, Keith Christman, Managing Director for Plastics Markets
- Nestle Waters, Pete DePasquale, Director of Government Affairs
- American Forest & Paper Association, Gretchen Spear, Director of Packaging & Government Affairs
- American Beverage Association, Kevin Dietly, Partner, Northbridge Environmental Management Consultants
- Grocery Manufacturers Association, Meghan Stasz, Director for the Sustainability Program
- Dell – Stephen Greene, North America Restricted Materials and Global Restricted Materials Policy Leader

I. CALL TO ORDER AND WELCOME

Chairman Will Flower called the meeting to order and read the opening remarks. Turned over to Chairman Victor Bell. Chairman Bell welcomed presenters and the need to keep presentations concise to encourage time for discussion and questions.

II. AMERICAN INSTITUTE FOR PACKAGING AND THE ENVIRONMENT (AMERIPEN)

Jeff Wooster, Past-President

[Presentation](#)

[Written Comments](#)

A. Presentation

Mr. Jeff Wooster introduced the American Institute for Packaging and the Environment (AMERIPEN) which has members representing all packaging materials in the entire value chain with a broad view of the packaging market. AMERIPEN is a science-based organization utilizing science for decision-making and prioritizing actions. Mr. Wooster noted that packaging is always part of a product delivery system and, as such, stressed to think about packaging in the context of the product.

Mr. Wooster noted that trends in tons of packaging per capita have been declining for the past 15 years. Industry has taken significant voluntary actions to reduce packaging primarily driven for economic reasons. The plastic water bottle example (see [slide 3](#)) was provided to demonstrate voluntary material/source reduction efforts over past decade which reduces amount of material for recycling/waste management.

Other initiatives by industry include changing the type of packaging material utilized. Mr. Wooster stated that AMERIPEN is material neutral and brand owners should be able to choose whatever packaging material is most appropriate for their product (e.g., best protects product at best cost with best environmental impact). Mr. Wooster discussed an example of packaging choices and associated environmental impacts of a steel can, rigid plastic container, and flexible pouch (see [slide 4](#)). By change from a metal container to rigid plastic container to flexible plastic pouch, there is significant reduction in the amount of weight, energy and emissions associated with the packaging. It might also decrease the recycling rate. But if you look at the amount of waste that needs to be processed, the flexible pack has a much lower rate of waste generation even with the high recycling rate of the steel can. The large reduction in the amount of material used compensates for the fact it can't be recycled. Unless there is 100% recovery of the other packaging types, lightweight material will be effective as reducing the amount of waste generated. Source reduction along with recycling can reduce the amount of material that ends up as waste.

Mr. Wooster stated he understands that cities and states need to prioritize what materials get processed based on what is most cost effective. AMERIPEN is working with a professor at York University in Toronto. For Canada, he's generated data looking at the increased costs for processing marginal material and how much improvement is achieved for recycling given the additional costs.

Mr. Wooster stated focus needs to be on environmental benefits of recycling on different material types. On a normalized basis, must assess relative environmental impact for different material types to show GHG emissions saved by one ton recycled. Varies greatly and, as such, each material shouldn't be treated the same and should be prioritized especially with limited resources to increase recycling and reduce waste.

Mr. Wooster outlined that the Oregon DEQ is reviewing materials on case-by-case basis to provide maximum environmental benefit for recycling. Numerical targets still exist but Oregon DEQ is looking on a material basis. Encouraged Task Force to look at Oregon SMM efforts.

Mr. Wooster noted that much of what is packaged is food and preventing food waste is an important role of packaging. If investing in packaging that protects food, it will reduce food waste. Oregon DEQ analyzed food waste and determined that the "return on investment" of environmental benefit was greater when investing to reduce at the source versus composting/recycling. Understanding is also needed when comparing products of similar categories such as different types of paper. When comparing, it is important to strongly consider how the material is recycled, reused, and the benefits of recovery even within similar categories.

EPR should be discussed with an understanding of goals and objectives of the program. For example with EPR:

- EPR increases recycling: Studies show EPR has only a small impact on recycling rates. It's a financial mechanism. Need consumer behavior and infrastructure independent of where money comes from.
- EPR encourages green design: From professional experience, Mr. Wooster stated he had never been asked to design packaging as a result of an EPR system. Role of packaging is to protect the contents and that is the primary focus of packaging design.
- Producers bear the costs of EPR: Costs are passed down to consumer. Recycling is manufacturing and manufacturing has costs associated with it and costs will be passed to the consumer.

Mr. Wooster closed noting that prioritizing of goals is needed using best scientific information to make decisions.

B. Question and Answer

- **Chairman Bell:** Two questions:
 - AMERIPEN has a mirror organization, EUROPEN, with very similar membership but different policy options in favor and in support of EPR in Europe. Since membership is similar, what is difference?
 - Task Force is looking for options for financing, increasing recycling and driving environmental balance. What policy options does AMERIPEN suggest?

Mr. Wooster: AMERIPEN has done extensive research on what policy options drive higher recovery rates. The three top policy options are:

- Automatic recycling (large carts automatically provided);
- Pay-as-you-throw; and
- Disposal bans on recyclable materials.

When two or three options are present, then a locality tends to have higher recycling rates for products covered independent of whether the locality uses an EPR system or not.

The key difference between AMERIPEN and EUROPEN is that all three conditions are present in European localities which facilitates a system that is easy for consumers to participate and infrastructure is in place. EUROPEN members support EPR systems already in place in those locations as a way to ensure high quality of material is recycled. If we change the financial mechanism in US, it doesn't mean recycling will increase at all because other policy levers aren't in place to ensure consumers are putting recyclables into the system. If a consumer doesn't put material into system, it can't be recycled.

- **Chairman Bell:** Do you consider a constant available source of funding not subject to town/city councils as a useful mechanism to ensure the recycling system is appropriately funded?

Mr. Wooster: The system costs money to operate regardless of how it is funded. It's the policy measures that will impact the recovery rate. Just putting a system in place won't increase the recovery rate.

- **Chairman Bell:** European programs are now more granular and have disruptor fees. If you put an OPEC PET bottle which screws up the MRF or put aluminum on a PET bottle, the brand owner pays a penalty fee to encourage packaging design. We see that as making that a big difference. How would you suggest the design of packaging that doesn't impact source reduction, food protection, etc. and how does Connecticut stop design that makes the cost of recycling increase?

Mr. Wooster: There are several options. Have not seen any scientific studies to know which are most effective so we likely need more research to understand. Understands desire to keep recycling system effective but cautions about making system so punitive that it inhibits innovation. We don't want to stop the development of new materials or packaging that, once implemented, might be much better for the system including reducing the amount of waste or increasing the amount of recovery in the name of protecting what's already in the recovery system. Likely more scientific study is necessary.

- **Mr. Metzner:** On [slide 11](#), requesting clarification on EU and US recycling rates. The EU rate is listed at 29%. On EUROOPEN website, it states that packaging recovery is 65% in 2012. Please explain the difference.

Mr. Wooster: The European recovery number includes waste-to-energy in the recovery rate which is not included in the U.S.

Mr. Metzner: Asked for clarification on if Europe includes waste-to-energy in their recycling rate.

Mr. Wooster: Waste-to-energy is included in the recovery number.

Mr. Metzner: Noted that the statistic says recycling rate.

Mr. Wooster: Noted he hasn't seen the document that Mr. Metzner was looking at.

Mr. Metzner: Where is 29% coming from?

Mr. Wooster: There is a reference at the bottom of the page ([slide 11](#)) that is the source of the data.

Mr. Metzner: What I see is 65%. And what I see in British Columbia is at 80% using EPR from Recycle British Columbia. 93% was recycled of what was collected.

Mr. Wooster: How much was collected?

Mr. Metzner: 80% recovery rate. 93% of material collected is recycled and does not include waste-to-energy.

Mr. Wooster: The 93% is likely accurate as they are collecting only material that is recyclable. They're looking to add new products to the program in near future. They don't collect

everything available in system causing the number to be high. A MRF in Connecticut might also have a high recycling rate of what was recovered.

Mr. Metzner: 80%, even if there is room for interpretation, is pretty good. Connecticut's goal is 60%.

Mr. Wooster: It's a matter of collecting to get up to the number.

Mr. Metzner: I've heard the British Columbia presentation and they take pride of ownership. Membership is similar like in Europe. Like Chairman Bell, I am puzzled why polar opposite opinions.

Note: AMERIPEN submitted [written comments](#) to follow-up on this dialogue.

- **Mr. Metzner:** You mentioned three strategies (automatic recycling, disposal ban and "pay as you throw"). Connecticut has two of those. Mandatory recycling laws have been in place since 1993. We have two of three strategies.

Mr. Wooster: You have a disposal ban? And on which products?

Mr. Metzner: Yes. On glass, metal, cans, newspaper, corrugated cardboard. Not plastics but most of what you find in the bin is subject to mandatory recycling laws and has been since 1993. Pay as you throw is an issue for towns politically. Some do it and I agree it gets better rates. But will it get us to 60%? We have two of the three things and we're still mired at a rate we find unacceptable. That's why we're here. Pay as you throw would be helpful but is it going to get us to 60% alone? I don't know.

Mr. Wooster: Is there enough consumer education and awareness of the disposal ban for example? In preparation, I asked several people about the state of recycling in Connecticut and it was not mentioned.

Mr. Metzner: We've had mandatory recycling laws since 1993 and I think it's pretty engrained. Municipalities all have ordinances they enforce. It's established but not as effective as it needs to be. I think we need to look at things that involve more responsibility from the packaging industry. More enforcement and more education is more money for the towns in the state. Given limitations on municipal expenditures, what can industry do financially to assist in increasing recycling rates?

Mr. Wooster: One thing industry can and is doing is increased education on how and what can be recycled. If you look at the Sustainable Packaging Coalition's How2Recycle label and, even though it's on a small number of items, they're already seeing an increase in the recycling of those items with the consumer education. Adding additional information to packaging is an example of a way to communicate with people that they should recycle the item and has helped increase recycling of those items. If lack of participation is a key issue and reason we're not getting material back, that's one that can be looked at.

With AMERIPEN research, the amount spent on consumer education for recycling on an on-going basis, even after a program is launched, does have strong correlation with how much gets recycled. I do understand that communities are strapped to do that education.

- **Mr. Wayne Pesce:** You discussed the role of packaging in delivery of the product but it can also be a marketing tool. How does marketing fit it?

Mr. Wooster: Packaging is a marketing tool but you wouldn't use it for marketing if you didn't need it to deliver the product. Packaging not used solely for marketing and it would be unusual to find a product packaged solely for use of marketing.

- **Mr. Scott Cassel:** Interested in Harvard study suggesting low rates in order to be able to respond. Strategies outlined are strategies supported by the Product Stewardship Institute (PSI) including Pay as You Throw and disposal bans. Emphasis through The Recycling Partnership on automatic recycling is a good effort. Those are three strategies that have been discussed over the past decade. What experience would provide comfort that the 60% goal can be met by 2024 using those three strategies alone at a state-wide or provincial or country level?

Mr. Wooster: Most data is collected by community since waste is managed at community level (except Rhode Island). No good examples at state-wide level. Anecdotal evidence of communities that implemented a program such as Pay as You Throw. Mr. Wooster outlined personal experience in Houston with large recycling carts – reduction from three bags of garbage per week to one bag every other week. No education was even provided with the delivery of the cart. Large carts are effective. If people have a large cart and are not using, then education efforts needed to get them to use. Don't know exact communication methods effective for residents of Connecticut. When communities do one of the three things (except disposal bans which are typically state-level), there are impacts.

Mr. Cassel: One of the problems we have is communities doing things in different ways with limited coordination. Interested in experience that will get us to 60% with these strategies. In Europe, they have the three options recommended but also did EPR as well. Why wouldn't that be part of strategy AMERIPEN is looking at?

Mr. Wooster: It's because data shows that communities that had EPR and the other three strategies didn't have significantly higher recovery rates than communities with just the three strategies without EPR. It's not that EPR is good or bad; it's that consumer participation and infrastructure drive increased rates. Understand rulemaking is in place but gap is with consumer education.

Mr. Cassel: Opportunities to follow-up on that data point.

III. AMERICAN CHEMISTRY COUNCIL (ACC)

Craig Cookson, Director of Sustainability & Recycling, Plastics Division

[Presentation](#)

[Handout 1](#)

[Handout 2](#)

A. Presentation

Mr. Cookson introduced the American Chemical Council (ACC) which represents the chemical manufacturing industry in the U.S. The Plastics Division is a subset that manufactures plastic resins for packaging, building and construction, automotive, and other consumer goods. Members make polyethylene, polypropylene, polystyrene, etc.

ACC's vision for plastics recovery can be found on [slide 3](#) and is circular in nature. Of all oil and gas produced in the U.S., only 3% goes into the production of plastics. Of that 3%, over 70% is natural gas and not oil. The tier is that we manufacture goods and packaging; the consumer uses and recycles; after it's collected, let's recycle and, if not, let's look at recovery on feedstock and, if not that, let's get energy value back.

Mr. Cookson highlighted the research conducted on non-bottle rigid plastic research in conjunction with the Association of Plastic Recyclers (APR). Polypropylene recycling is an example of an industry-driven initiative. ACC was one of the original founders of the Rigids Committee within APR. Non-bottle rigids recycling has been in meteoric rise over the last 10 years. It's an example of an industry driven approach by working on technical products, driving demand, and increasing awareness.

ACC tracks progress through detailed reports on recycling of bottles; flexible wraps; bags and films; and non-bottle rigid plastics.

ACC put together an article for Governing magazine that combines comments submitted to state agencies such as Connecticut, Michigan (twice) and Minnesota and is a combination of policy, voluntary programs, and industry programs (see [handout](#)). The five key recommendations:

1. Adopt a Sustainable Materials Management (SMM) approach.

Mr. Cookson stated we need to be more sophisticated in how we think about use of materials and where recycling/recovery plays a role. EPA has adopted SMM along with states like Oregon and Minnesota. Focus should be on environmental benefits.

- a. Example of coffee steel can vs. plastic canister vs. plastic brick ([slide 8](#)). Steel can is able to be recycled in most recycling programs in U.S. If we use plastic brick packaging that's not recyclable, we reduce greenhouse gas emissions by 75%. We recycle because we want to get material back into the manufacturing process but also reduce emissions, conserve water and conserve energy.
- b. Another example is from Oregon Department of Environmental Quality ([slides 9 and 10](#)). Compares recycling rates of PET to demonstrate small environmental benefits associated with increased recycling rates on PET bottles. Then compares the benefits of that same recycling rate using a light-weighted bottle demonstrating that larger impacts are found in light-weighting versus just increasing the recycling rate. Must holistically think about use of materials and opportunities to achieve greater environmental benefits.

2. Encourage sensible, broadly supported recycling policies.

Pulling from CT DEEP's 2016 Comprehensive Materials Management Strategy.

- a. Mandatory recycling, commercial generators, and multi-unit residential dwellings. DEEP states laws not enforced. Before existing system is thrown out, focus should be on enforcement.

- b. Relaxing regulations to encourage economic development. Includes mixed waste processing. ACC did a report that showed it was a complimentary program to achieve higher recycling rates.
 - c. Earmark the bottle deposit escheats directly to recycling programs and protect from the General Fund as a policy option. 2009 law that siphoned money away from that fund to the General Fund. \$20M in 2015 and \$186M since 2009 based on ACC research. This could be a funding source.
 - d. Explore policies such as pay-as-you-throw; providing technical assistance and best management practices; and focus on food waste prevention.
3. Embrace voluntary plastics recycling programs and tools.
 - a. Connecticut is already a WRAP Partner.
 - b. Using "How2Recycle" label and working with retailers in state.
 - c. Standardizing plastics terms to help increase recycling and reduce confusion.
 - d. Encourage Connecticut groceries to get involved with APR's Grocery RIGID Plastics program.
4. Leverage national partnerships for grants, loans, and technical assistance.
 - a. ACC is part of The Recycling Partnership. Rolling grant program that Connecticut communities can apply for right now.
 - b. Closed Loop Fund has \$100M in commitments.
 - c. U.S. Department of Energy engaged with \$140M REMADE project looking at recycling and recovery.
5. Treat non-recycled plastics as valuable materials for conversion to fuels and chemicals.
 - a. Look at treating non-recycled plastics as feedstock and not as disposal. Converting these plastics into diesel fuel, home heating oil, or back to a monomer or crude oil.
 - b. Environmental benefits of doing so but need a welcoming regulatory environment that treats facilities as manufacturing and not as waste disposal.

Mr. Cookson outlined the vision for moving forward in Connecticut:

- Focus on environmental outcomes from materials management and recycling/recovery;
- Embrace life cycle analysis;
- Utilize tools and programs that gain efficiencies (e.g., give programs like WRAP time to work);
- Enforce Connecticut's existing laws and regulations (e.g., enforce laws on books first);
- Focus on preventing food waste, rather than after its been wasted;
- Focus on broadly supported programs and policies; and
- Find consensus among key stakeholders.

B. Question and Answer

- **Mr. Pesce:** Comments, not questions. First, its \$31M in unclaimed bottle deposits – number is much larger and growing. To wrestle that money away from general fund may be outside the scope of this committee and plays into a lot of policy angels. Second, the WRAP program has been embraced by grocery retailers in Connecticut. "Folks don't know what they don't know" so there is a large educational component around the WRAP program to consumers. Lastly, around rigid plastics, Connecticut grocery retailers are sending rigid plastics back if there is commodity value and will continue to do so.

- **Mr. Metzner:** Regarding enforcement, there is no money for enforcement which is the problem although DEEP does agree that increased enforcement could have a beneficial effect.

On [slide 14](#) regarding non-recycled plastic as feedstock. Caught on non-recycled vs. non-recyclable. A lot of waste to energy in Connecticut. Please help distinguish between putting material into waste-to-energy for recovery versus any other technology.

Mr. Cookson: Want to explain the term non-recycled. Technically all plastics can be recycled; it's a question on whether it's economically feasible (e.g., recyclable but not being recycled for certain reasons like economic reasons).

Plastics-to-Fuel and the Petrochemistry Alliance discuss barriers to these technologies. These types of facilities are receiving plastics that have been culled several times to get rid of non-plastic material (e.g., contaminants). Regulators tend to not understand how to regulate this industry. Regulatory FAQ that has been put together by the Alliance to explain why industry shouldn't be regulated as waste disposal. Florida is an example of successful law that plastics to fuel and petrochemical facilities should be regulated like recovered material facilities (e.g., manufacturers) and feedstock should not be considered a waste.

Mr. Metzner: In hierarchy, where would technology go?

Mr. Cookson: Conversation should focus on benefits of the activity (e.g., greenhouse gas savings). Thinking more holistically about environmental benefits and outcomes.

- **Chairman Bell:** One challenge in Connecticut is that communities used to get money back from MRFs on value of recyclables which has now gone to basically zero. Also, new facilities now need oil prices to be close to \$65-\$70/barrel to be economically feasible. This all impacts costs of recycling. The China-sword factor (more issue on West coast than East coast). \$100M worth of grants but probably \$1B - \$1.5B in infrastructure investments to get the U.S. equivalent to the rest of the world. How do we fix the \$100M - \$1B gap in the funding for infrastructure and communities losing money from commodities (including the possibility that becomes harder once oil prices go down)?

Mr. Cookson: Let's not discuss the national picture. In Connecticut, ACC has identified a source of money (the bottle deposit escheats) but the response from Task Force members seems to be that it's politically difficult so let's do EPR instead. Why not try to explore where the money already is even if it's hard politically?

Even with EPR systems in Europe, you don't repeal the laws of economics. Recyclers are still having trouble in Europe and a lot of the plastic is still getting exported to China. In terms of economics, we don't want to lose the competitive aspects of the U.S. recycling market. Concern with British Columbia is that it's become a state sanctioned monopoly. If there are vertically integrated markets, we might also lose demand avenues. One advantage of the U.S., is that we have dynamic end market players doing lots of good.

- **Mr. Ed Spinella:** First, it is not true that the towns aren't receiving rebates. The vast majority of MRFs are providing rebates as well as revenue sharing. The only MRF not providing guaranteed rebates is the one that's quasi-public. Second, the MRFs are all privately owned

(except one) and the equipment is expensive. Over 30% of the municipalities spend no money on collecting recyclables (e.g., subscription). A fair percentage have municipal contracts and another percentage have union employees. Once items are collected, they are delivered to MRFs with a vast majority that don't have tipping fees. Tipping fees in Connecticut on MSW are mid-\$60/ton or high \$90/ton. MRFs are providing a service without charging a tipping fee. MRFs have expenses so they have to recover through the sale of commodities. Municipalities are getting something from MRFs – facilities accepting their recyclables without paying a tipping fee. Many municipalities are receiving guaranteed rebates as well as revenue sharing.

In Connecticut, we have 15.2% mandated recyclables in our MSW. Is Connecticut doing a good job?

Mr. Cookson: Yes, that sounds reasonable. 85% is left – 40% is food waste and the rest is non-mandated.

Mr. Spinella: Do you agree that one thing the Task Force must focus on is the 15.2% into the recycling stream?

Mr. Cookson: Agree. That's why ACC is working on programs.

Mr. Spinella: So we should look at 15.2% along with items that make-up the 15.2%?

Mr. Cookson: Going back to the greenhouse gas benefit, we must identify what environmental benefits we want to achieve. The difference is being recycling rate driven versus environmental benefits driven. Keep focus on what is role of packaging and then thinking about what materials we go after.

IV. AMERICAN CHEMISTRY COUNCIL (ACC)

Keith Christman, Managing Director for Plastics Markets
[Presentation](#)

A. Presentation

Mr. Christman states he understands the Task Force wants a better understanding on marine debris issues. Plastics industry believes that plastics don't belong in the environment. Plastics deliver important societal benefits – energy reductions in use, greenhouse gas emissions, reducing food waste, and improved quality of life. In order to get benefits, plastics can't be in environment.

On sustainability side, plastics do offer important environmental benefits. Trucost recently did a natural capital accounting of the environmental cost of plastics vs. alternatives for the UN Environment Program. ACC updated the study to look at ways to reduce impacts. Plastics had a \$139B environmental cost but if you were to switch to alternatives to plastic the environmental cost would be \$533B including marine litter as an impact category.

Plastics play a huge roll in reducing food waste. A cucumber, for example, will last 3 days on the shelf but, if you wrap it in plastic, it will last 14 days giving the grocery store more opportunity to sell the produce and the consumer more opportunity to use it at home. Globally, we lose 30-50% of our food before the consumer gets the opportunity to eat it.

Mr. Christman noted a marine debris study was published in 2015 in Science magazine which highlights the largest sources of marine litter. Challenge globally is rapidly developing countries increasing their consumption without adequate waste management systems in place. China is globally the largest leaker of material into oceans followed by Indonesia, the Philippines, Vietnam and Sri Lanka. The U.S. is 20th on the list caused by the mismanagement of waste. The 18 countries in the European Union are 18th on the list even with EPR. EPR does not play a role in reducing marine litter; rather, it's an issue of how you manage waste and the systems in place.

In the plastics industry, Mr. Christman stated there is a commitment to reducing marine litter. Announced Global Declaration with over 70 associations from 25 countries and launched 260 projects since 2011 to reduce marine litter. Areas working in globally can be found on [slide 10](#). Partnerships have grown and are making progress (growth from 100 projects in 2011 to 260 in 2015).

In the U.S., the issue is mismanagement of waste. Studies in Hawaii are an example of how we can identify sources of marine debris litter. Simple solution is locating uncovered trash cans near water sources. Other examples include waste mismanagement in the District of Columbia with uncovered trash cans running into storm drains and into the Anacostia River. Simple solutions (lids on trash cans, covered loads, etc.) can be identified through litter studies.

ACC is involved in partnerships across country. In California, a partnership has added 700 bins in coastal areas and other locations. In Hawaii, they've partnered with EPA's Trash Free Waters program and Meadows Center to provide communities with tools to manage waste and clean-up in specific areas. In the Northeast, ACC has partnered with Save the Bay in Narragansett Bay and in Virginia Beach area.

On policy, ACC supported the "Microbeads Free Waters Act of 2015" to phase out microbeads in personal care products and is supporting the "Save Our Seas Act".

Globally, ACC has lots of partnership including supporting takeback of nets for recycling. ACC partners with the Ocean Conservancy which has identified the key issues in the 5 largest countries contributing to marine litter and concluded that focus is needed on 1) collection of trash and 2) plugging the gaps in waste management systems to increase recycling/recovery. ACC is working with the Ocean Conservancy to identify funding sources for those programs.

Mr. Christman stated that growth in the recycling of non-bottle rigid plastic has grown significantly. Goal with WRAP program is to double the recycling of film recycling by 2020 and Connecticut is already a strong partner in that program.

B. Question and Answer

- **Mr. Cassel:** Are you familiar with the external cost on the environment from plastics in the marine environment?

Mr. Christman: Yes, the Trucost study mentioned that was commissioned by the United Nations that looked at external cost. Can't remember exact figures but estimates around \$8B of the \$90B. The follow-on study looked at plastics and alternatives and found that

alternatives were a much higher environmental impact (because they used four times more mass) if leakage issues aren't addressed.

Mr. Cassel: Would be interested in reports if those could be sent to the Task Force. Mentioned that problems were caused by mismanagement of waste (at least in Washington, DC and other places). What is the responsibility of the industry for helping with the garbage can because of lack of funding, education, etc.? There are problems that have solutions but municipalities need more money. There are issues with pointing finger at the municipalities. What is the role of ACC and the industry in helping those municipalities?

Mr. Christman: As mentioned, working with California and implementing 700 bins. It's an area where we all have to work together. Worked with Honolulu once source of litter was identified to install new trash cans with lids. Interested in working with communities that need help.

Mr. Cassel: Would like to see specific examples. Concern with scalability as these efforts spread out and external costs go up over time.

Mr. Christman: We agree on urgent need for action. That's why ACC is investing in 260 projects worldwide.

Mr. Pesce: Want to respond to Mr. Cassel. Answer isn't always money; the answer is efficiency. It's about education, behavior, efficiency.

Mr. Cassel: Education and other items translate down to money. A poorly run program can't have money thrown at it. The systems, protocols and best practices must be looked at, implemented and measured.

V. NESTLÉ WATERS

Pete DePasquale, Director of Government Affairs

[Written Comments](#)

A. Presentation

Mr. DePasquale introduced Nestlé Waters as the nation's leading bottled water company and third largest non-alcoholic beverage company in the U.S. Branded spring water products include Poland Spring, Pure Life, San Pellegrino and Perrier.

For the first time this year, the sales of bottled water have surpassed sales of carbonated beverages. That's a great thing for the country as billions of calories are taken out. As a company, Mr. DePasquale noted Nestlé Waters understands that as demand of our products rise, so does the volume of our product in the waste and recycling streams. Nestlé Waters understands is has a responsibility there.

For the vast majority of Nestlé Waters' products, packaging is PET water bottles. Proud that the example of light-weighting in plastic bottles is a role model. Nestlé Waters has lead the industry in those efforts. Reduced plastic content in plastic bottles over last 15 years by 62.5%. As example, in 1990, Nestlé Waters' half-liter bottle weighed 24 grams; it now weighs 8.3 grams. Achieving a smaller environmental footprint begins with less packaging but it doesn't stop there. For a matter

of scale, light-weighting of bottles and reducing the size of labels and caps saved about 65 million pounds of plastic and 10 million pounds of paper annually. In total, Nestlé Waters has saved over 5 million pounds of plastics and reduced CO₂ emissions by 770,000 tons since 1995.

Mr. DePasquale also stated the company's interest in investing in the development of the bottle of the future (aka "tomorrow's bottle"). Recently announced a partnership with Danone and the California-based Origin Materials to accelerate the development of a bio-PET bottle. Excited and investing with the hope to have bottles hit shelves in 2020. It will be intellectual property shared with the entire food and beverage industry.

Those types of partnerships, in particular Public-Private Partnerships, that leverage government, academia, and private industry are critical when it comes to source reduction, innovation and research. Mr. DePasquale encourages the panel to look at in-state resources in Connecticut and think about ways that public-private partnerships can be encouraged particularly on source reduction.

On recycling, bottles are 100% recyclable and recovered through single-stream or bottle deposit laws. Nestlé Waters supports purposes of both of those systems but more needs to be done as Connecticut's recycling rates are still too low. He outlined their vision of supporting a robust circular economy where Nestlé Waters can make bottles out of bottles. In order to do that, Nestlé Waters needs to ensure that policies are in place and Nestlé Waters is investing in the creation of a robust market for our PET. As Mr. Bell indicated earlier today, there are headwinds to do that especially with the cost of oil and natural gas. Regardless of that, Nestlé Waters is still moving forward. In 2015, the company introduced a 100% recycled content PET (rPET) bottle for our resource brand. It's a smaller brand but it's the first start of introducing a 100% rPET bottle. Nine out of 10 of the Arrowhead bottles in California include a high concentration of rPET.

While the policy recommendations of Task Force aren't going to impact global oil pricing, there are a few things that can be done.

1. Invest in our MRF infrastructure. Curbside PET has a yield rate less than redemption PET. That's well documented and discussed including this past legislative session. As a company, Nestlé Waters invested \$6M in the Closed Loop fund which provides 0% loans to municipalities and low interest loans to private enterprise to invest in recycling.
2. Connecticut has a strong policy infrastructure: universal recycling requirements, disposal bans and beverage container deposits. The issue comes down to funding and additional resources are needed. The funding source that is readily available apparently is the escheats from bottle deposits. That's our money and Nestlé Waters believes it should be directed to recycling programs. That's true even if we entertain a transition to a recycling fee (e.g., the Delaware model). Regardless of revenue generated from our bottles, Nestlé Waters believes those need to be dedicated funds. Those funds are best dedicated to improving recycling infrastructure either at the MRF level (MRF of the future) as well as those out-of-home locations (e.g., parks, public spaces, multi-unit dwellings) that are a problem for collection rates.

With respect to recycling in places like Connecticut (small geographic area and population density), it is a strong-link issue meaning that the system is improved the most when the systems strongest performers are improved. Nestlé Waters believes that targeted

revenue from escheats should be targeted to MRFs where biggest improvement in collection could be seen as well as commodities generated.

3. Other things can be done to make investment more attractive and decrease the cost of capital such as tax levers (e.g., accelerated appreciation/immediate expensing on capital improvements; sales tax exemptions for certain recycling equipment). All levers can be pulled to make investment in recycling machinery and equipment more attractive at the MRF level.
4. Lastly, Nestlé Waters agrees that waste-management is a shared responsibility. Consumers play an integral role. Progress has been made but education initiatives need to be maintained including educating the public on what materials should and shouldn't be discarded in their curbside recycling bins. Significant time and resources are wasted at the MRF level as they remove items that contaminate the very valuable recycling stream that we need to invest to protect.

Mr. DePasquale noted there is more information in the Nestlé Waters [statement](#). Nestlé Waters looks forward to continuing to work with the Task Force. Happy to provide more information on what Nestlé Waters is doing at the global, national, state and local level with respect to litter clean-up and other topics.

B. Question and Answer

- **Mr. Hap Perkins:** With an EPR fee on your packaging, does it induce you to reduce or lightweight any further?

Mr. DePasquale: With respect to innovation, we've light-weighted pretty close our maximum especially on our half liter. On our carbonated bottles, it's a little thicker and there is some innovation we believe we can achieve around that. From an innovation standpoint, we've hit that wall. Not saying there won't be additional breakthroughs but we believe breakthroughs will come through substitute packaging on the bottle of the future and exploring things like bio-PET.

- **Chairman Flower:** One thing states have looked at are mandates on recycled-content in packaging. Why would or wouldn't that be a good idea for Connecticut to mandate that a certain percent of recycled-content be used in your packaging?

Mr. DePasquale: The market for rPet just isn't there right now. That's what we need to focus on. With respect to Connecticut's bottle bill, we've discussed needing to move away from the policy rationale of it being a litter-control mechanism to a mechanism that enhances recycling and creates a robust market of recyclables. Nestle Waters wants to increase the recycled content of our bottles. We don't need a stick to be induced to do it. We need a market so we can procure this raw material. We believe that, in the short term, the best way of doing that is strengthening our strong links which is the MRF infrastructure and making sure the product coming out of our MRFs is not contaminated. It's still clear that the product coming out of the redemption system is a higher quality PET than the MRF system. In order to get the MRFs to the same level or higher its capital expenditures (CAPEX).

VI. AMERICAN FOREST & PAPER ASSOCIATION

Gretchen Spear, Director of Packaging & Government Affairs

[Presentation](#)

Written Comments

A. Presentation

Ms. Spear introduced the American Forest & Paper Association (AF&PA) which is the trade association for the forest products industry. Members serve to advance the sustainable U.S. pulp, paper, packaging, tissue, and wood products manufacturing industry. Members make products we use in our everyday life from renewable and recyclable sources. Industry accounts for 4% of the U.S. manufacturing GDP. AF&PA's members manufacture \$200B in products annually and employ 900,000 people across the country. In Connecticut, AF&PA members have more than 3,600 employees and 61 facilities ranging from converting facilities to the Rand Whitney Mill in Montville, CT.

Ms. Spear stated the industry established voluntary sustainability goals in 2011 in an effort to better tell their story. Goals were set in six different areas to improve the U.S. paper and packaging industry. In particular, the paper recycling goal is to exceed 70% by 2020. In 2016, AF&PA members were already at 67.2% and the recovery rate has double since 1990 when it was only 33.5%. In terms of greenhouse gas emissions, AF&PA members reached the goal in 2016 at 15% and now the goal has been increased to 20% as well as the safety goal.

In 2016, the industry is at 67.2% of paper recovery. The trend line ([slide 12](#)) shows from year-to-year the progress toward increasing recovery. For old corrugated cardboard (OCC), the recovery rate for recycling was 93%. That is continuing to increase due to the increased recovery at store and retail facilities. One factor now is also the increase in eCommerce (aka, at home delivery such as Amazon, Walmart, Blue Apron, etc.)

Ms. Spear stated that recovered paper is a globally traded commodity with very well-developed markets. Approximately 80% of all U.S. paper mills use some type of recovered fiber in everything from paper-based packaging (OCC, paperboard, bags, multi-wall sacks), office paper, newsprint, and even tissue. A free marketplace promotes and should guide recycling and recovery systems. AF&PA also promotes increased paper recovery for voluntary recycling; raising awareness of the importance of recycling; creating public-private partnerships; providing tools and resources for communities to connect with small businesses and multi-unit dwellings; and promoting proven best practices.

Ms. Spear noted AF&PA, in their [written statement](#), had asked for the issue of contamination of recovered fiber (aka paper and paper based packaging) to be addressed. Some resident participate in "wishful recycling" – just because it goes in the cart/bins, it will magically be recycled. That's not the case if there's not an end market or the ability to recycle it. It's a growing concern.

Another issue Ms. Spears sees related to contamination is that fiber is at risk of being contaminated from glass, liquids and other materials that shouldn't be in the recycling stream (e.g., sharps). AF&PA supports the separation of dry recyclable materials and separation from wet/organic solid waste. AF&PA does not support mixed waste processing (aka, "dirty MRFs") because of the lower value of recovered fiber.

One of the ways AF&PA see industry moving forward in increasing recyclables is through partnerships. AF&PA has partnerships and programs to increase recovery with The Recycling

Partners, Food Service Packaging Institute and Paper Shipping Sack Manufacturers' Association. Industry is at 67.2% and understands there will be a maximum amount that can be recovered for recycling. AF&PA knows that food service packaging and unlined food-based shipping sacks are a way to increase recycling.

- Food Service Packaging Institute: Working with communities to incorporate paper food service packaging into recycling streams. AF&PA is working with members who are able to accept that product at their mills.
- Paper Shipping Sack Manufacturers Association: AF&PA is also working with members who can accept unlined, food-based shipping sacks (e.g., bakeries) as it is a high quality paper.
- The Responsible Package: AF&PA sponsors program for 5th grade students where 150,000 students have been reached across the U.S. to educate about the benefits and positive attributes of paper-based packaging and environmental benefits of recycling.
- Also supporting recycling-based organizations such as the Northeast Recycling Council to increase paper recovery.

Ms. Spear outlined the following recommendations from AF&PA:

- The marketplace for paper and paper-based packaging drives paper recovery and utilization.
- Avoid mandates and arbitrary rules that could harm the increase of paper recovery.
- Allow industry to continually and successfully implement voluntary recycling programs.
- Support public-private partnership (e.g., The Recycling Partnership, Closed Loop Fund) that can provide additional funding to communities to increase recycling.

B. Question and Answer

- **Chairman Bell:** How do you propose fixing the problems created by single-stream recycling?

Ms. Spears: Some single-stream community recycling programs are good and some aren't. AF&PA isn't suggesting to pull glass out but rather the goal is to ensure clean fiber is getting to our mills. Education is needed at community level and working with MRFs to ensure that mills are getting clean bales.

VII. AMERICAN BEVERAGE ASSOCIATION

Kevin Dietly, Partner, Northbridge Environmental Management Consultants

[Presentation](#)

A. Presentation

Mr. Dietly introduced the American Beverage Association (ABA) and noted it has some unique attributes to offer:

- ABA represents the entire value chain; not just producers but members include container manufacturers and fleet operations. ABA members use water, packaging and deal with recycling of packaging. Long and distinct impact on value chain for packaging products.

ABA's products are part of the Connecticut bottle bill. There is \$70M spent in Connecticut annually to make the bottle bill work. \$35M from ABA members and the Connecticut Food Association's members to make the system work and \$35M comes from consumers. The escheats are actually consumers' money. Consumers are spending \$70M to have a system that recycles barely 2% of

the waste stream. That's a policy choice. The Connecticut legislature is looking at expanding the bottle bill which would be another \$27M to recycle barely 0.1% of the waste stream. That's a really bad idea. The deposit system is keeping between \$8-10M of commodity value out of the comprehensive system. Example is Hartford MRF stating that \$800,000 of commodity value being kept out in terms of aluminum. Bottle bill is potential impediment to greater recovery.

ABA's packaging is about 2% of the waste stream using EPA's data and ABA's data. Packaging overall is about 30%. Ticking through the waste hierarchy, the beverage industry has been on the forefront of source reduction across all material types. In 2013, ABA member companies reduced PET usage by 136M lbs. through light-weighting.

ABA members are using high-value, high-performance material. It protects the product and provides product worth having in the waste stream from a recovery standpoint. Source reduction in and of itself isn't a goal. The packaging must fulfill its function along with the value of the material downstream. Mr. Dietly noted ABA members' selection and use of exceptionally high value materials (PET, aluminum or HDPE) worth having in the waste stream for recovery stream. The issue becomes the ability to extract these materials from the recovery system especially if high cost system like Connecticut's bottle deposit system.

Innovation (e.g., recycling, design for recycling, label designs, adhesives, coating) is happening and helping set the standards for designing for recycling.

ABA is putting good value material out there and is recovering 94% of material being generated in own recovery system. ABA is invested in recycling partnerships and innovation (e.g., pilot program that lead Hartford to curbside program and eventual single stream conversion of MRF in Hartford).

ABA supports policy initiatives which can be seen in legislation ABA has written and supported in other states (MA, IA, VT, DE). Mr. Dietly stated there is a role for industry but deposit laws can be seen as impediment to further recycling and investment. ABA does not support individual state mandates on source reduction (early adopters left behind or disadvantages) or minimum content standards (market disruptor).

ABA supports robust infrastructure for multi-material recovery. Including:

- Access in terms of mandatory recycling (80-90% participation rates versus 15% with subscription services like what is seen in Connecticut);
- Large covered volume carts;
- Same day collection (can move from 30% to 60% recovery rates);
- Multi-unit dwellings;
- Use of high value materials.
- Embedded rates (trash and recycling combined); and
- Pay as you throw (regardless of political infeasibility).

In terms of EPR, ABA has filed EPR legislation in Vermont (state association level). Components of EPR in ABA supported legislation in IA and MA. EPR is all about the guardrails. EPR is a financing mechanism and what we need to finance is the right infrastructure. If we need EPR to get the right

infrastructure then it can be explored. Other options in Connecticut of generating revenue (e.g., potential income from deposit system).

B. Question and Answer

- **Mr. Cassel:** What are the guardrails for an EPR system?

Mr. Dietly: Guardrails include best practices, shared responsibility, transparency, and organization. ABA has supported principles that have been embedded in ABA supported legislation. As industry, we don't have unconditional support for EPR without context. ABA is revisiting principles.

Mr. Cassel: The Vermont EPR caused a stir because it was perceived to exchange the bottle bill for an EPR system. How would ABA get performance of the bottle bill without the bottle bill?

Mr. Dietly: It can be done. ABA finished research in Massachusetts specifically on glass. Glass is not an ABA issue but glass is an overall issue due to outdated deposit infrastructure. Systems were looked at regarding replication of performance of a deposit system for glass if glass was sent through single stream with installed cleaning technology at the front of the largest MRFs and optical sorting downstream was done to create a commodity that could/would be bought and marketed. It was found that you could achieve the same level of glass recovery using an alternative system, based on what's being done in other areas (Ohio). You could also put a deposit system on all the glass and achieve a higher level of glass recovery but at a big economic consequence.

Mr. Cassel: How about other materials?

Mr. Dietly: Yes. Connecticut's redemption rate is 48.5% in calendar year 2016. The unclaimed is 35% now. The deposit program is tanking in Connecticut. The redemption rate for PET is barely over 30%. ABA knows from Massachusetts research on an expanded bottle bill, the weighted average recovery rate for non-deposit beverage containers was 64% which weighs in a low recovery rate for drop-off and voluntary programs. If you look at the high achieving communities, on average, we are getting 60% of the Gatorade and plastic bottles in Massachusetts at a lot less cost than \$0.035/bottle or whatever the proposed handling fee is in Connecticut.

- **Mr. Pesce:** The beverage companies already have a form of EPR established in Connecticut with a \$0.02/bottle handling fee. Every bottle that goes out (except for juices, teas, and isotonic) has a fee on it. EPR already exists for the beverage community although it doesn't extend to other products and product lines. In my opinion, the beverage companies are already paying a form of EPR; it's just called a handling fee, not EPR.

Mr. Dietly: We're just being told how that money has to be spent.

- **Mr. Bell:** In your form of EPR, the money never goes to the state but to a third party organization. It therefore cannot be swiped.

Mr. Dietly: Right. In theory.

VIII. GROCERY MANUFACTURERS ASSOCIATION
Meghan Stasz, Director for the Sustainability Program
[Presentation](#)

A. Presentation

Ms. Stasz introduce the Grocery Manufacturers Association (GMA) which represents the leading food, beverage and consumer products companies in the U.S. There are about 200 members.

As background, Connecticut has a goal of 60% diversion of solid waste from landfills by 2024. Ms. Stasz stated that DEEP has rightly identified the importance of greenhouse gas emissions reductions and linking that as a priority especially as we transition to the next generation of materials management technology.

From the most recent waste characterization study in Connecticut, the top 10 materials in the state from 2010 and 2015 can be found on [slide 5](#). A couple things to note to frame conversation:

- Some corrugated and paper but there aren't any major categories of packaging.
- Notable increase in food waste which is critically important to identify as an area of opportunity to meet 60% diversion goal.

When we think about consumer product packaging in the US, Ms. Stasz stated that the Consumer Packaged Goods (CPG) sector is a leader in research and development (R&D), source reduction and innovation. This is critical for thinking about meeting an overall objective of reducing the industry's environmental footprint. GMA members have light-weighted as much as possible and are now looking at how to optimize packaging. Because the sector operates at a massive scale, those reductions yield huge volume reductions and avoidance of packaging material being used in the first place. Spending millions of dollars on R&D such as the plant bottle. Partnerships under way to find ways to recycle harder-to-recover materials (e.g., hard-to-recycle plastics research in Omaha, NE with Dow, ConAgra and Reynolds). Must also look at the critical role of packaging in preventing waste; ensure safe and in-tact delivery to consumers; and prevent food waste as much as possible (e.g., cucumbers in plastic example to extend shelf life). When we think about GHG implications of sending material to landfill, packaging has to perform. The biggest GHG emissions implications in a cup of yogurt is in the yogurt, not the cup. Need to focus on what's important from an environmental impact.

When packaging engineers at major CPG companies think about what packaging choices to make, there are a huge array of factors. Recyclability is certainly a factor but the overall objective is to reduce environmental impact (lowering GHG emissions, less material, etc.). In addition, packaging still has to perform. Example of the different coffee containers (see [slide 7](#)).

Industry's efforts have yielded major results. The U.S. is producing less packaging in spite of US's GDP growth which exceeds that of the top 15 countries in the EU. Food waste continues to be the single largest category of material in US landfills and Connecticut landfills. Industry takes that very seriously because GMA is the food industry and the factor of GHG implications of food waste is 25 times more impactful in the waste stream.

To focus on food waste reduction, GMA launched an initiative with the retail sector and the restaurant and food service sector to help drive the amount of food waste from those sectors

(Food Waste Reduction Alliance). GMA and the retail sector launched a major initiative to help consumers reduce food waste at home through a national standard around date label phrases to help reduce consumer confusion and provide more information about the packaging they use.

Ms. Stasz outlined industry led initiatives including:

- AMERIPEN: Heard from Mr. Wooster earlier in meeting.
- The Recycling Partnership: Working to help municipalities increase consumer engagement in recycling programs.
- The Closed Loop Fund: \$100M in loans to help municipalities and states improve recycling infrastructure.
- Sustainable Packaging Coalition: “How2Recycle” label to help clear-up confusion on what can be recycled. Cereal box and cereal box liners are an example of testing if more clarity for consumers on the packaging will help them understand what to recycle and participate in recycling programs in a more meaningful way.

Ms. Stasz wanted to briefly discuss EPR. There are two major arguments for EPR. Proponents say:

- EPR will reduce cost through efficiencies; and
- Will result in more “environmentally friendly” design of packaging.

Ms. Stasz stated that neither are true. Example from Ontario, Canada (see [slide 12](#)) on the cost of the Blue Box program from 2011 to 2015. The program has EPR for packaging and the costs have steadily risen.

One of the reasons EPR does not cause changes in packaging design is because the way that EPR is set-up is that there are fees levied on different types of materials to either encourage or discourage those products in the system. It’s market distortion. Different fees are levied based on what is wanted in the MRF. A snapshot on Germany and Belgium from 2004 (see [slide 13](#)) demonstrates vastly different fees levied on different kinds of packaging. It’s not only market distortion but it’s a mixed signal to packaging designers and companies.

Example of fees levied on Blue Box program in Ontario, Canada (see [slide 14](#)). If you look at the coffee example, the incentive for glass and aluminum is high given that the fee is extremely low. There is a high fee (or fine) to discourage plastic laminates. PET falls in the middle. If the focus is on how to incentivize the best environmental outcome, levying fees on different kinds of materials doesn’t generate that outcome.

According to DEEP, [slide 15](#) shows what is in the MSW composition in Connecticut between 2010 and 2015. Ms. Stasz noted interesting points including:

- All packaging numbers went down in 5 years. The amount of packaging materials (paper, plastic, metal and glass) has seen a decrease.
- Food waste is skyrocketing. How do we address the problem of putting food waste in the trash can?
- Other major categories and changes are also reflected.

[Slide 16](#) identifies the material that ends up in the waste stream and, of that, what can be recovered. 41% of what is in the current waste stream that could potentially be pulled out is compostable organics. 1.3% is other recyclable plastics; 4.7% is recyclable containers. Ms. Stasz

stated that if we want to put resources toward the biggest bang for the buck and reaching the 60% diversion goal, let's go after compostable organics at 41% versus 1.3% and 4.7% of packaging material.

Ms. Stasz outlined the best practices to implement in Connecticut keeping in mind the composition of the waste stream:

- Promoting Best Design Practices: Don't stifle packaging material innovation because those new materials are what is driving down overall environmental impact, protecting product, and improving food safety. Want to avoid overly narrow thinking about older materials that are more commonly recycled. But from a GHG perspective, we want to promote innovation.
- Food Waste: It's critical.
- Cost and Efficiency: What's working in Connecticut? There are 5 MRFs (private businesses) so identify which ones performing the best and why. What are they doing in different parts of the state that might have higher recycling/recovery rates in order to replicate those results in other parts of the state?
- Streamlined Messaging to Consumers: Helping consumers understand what can be put in the bin is critical. If that last link in the chain, even for products commonly recyclable, causes a disconnect then everything breaks down. Need to send consumers clear and consistent messaging on what can be recycled in order to get high quality materials into the system to help fund the MRFs.

B. Question and Answer

- **Chairman Bell:** Lately in the more modern European programs, there are disruptor fees and some are looking at life-cycle assessment (LCA) basis for design (especially in France). Discouraging doing things to packaging that destroy the system (e.g., aluminum on a PET bottle). How else can we stop stupid packaging?

Ms. Stasz: I will push back that its stupid packaging. Packaging has a number of roles to play. Levying fees to encourage or discourage or distort the market to get certain kinds of materials into the MRF isn't the solution.

Chairman Bell: We're not talking about distortion. We're talking about getting rid of things that disrupt the system.

Ms. Stasz: Through fees. Which is blatant market distortion.

Chairman Bell: If you put a full body laminate on that can't be seen by an infrared sorting mechanism, how do you get a company not to do that? Should we put bans on that material instead?

Ms. Stasz: No. The concept is to take a step back and look at the entire system holistically. What is the problem we're trying to solve? Identifying the problem you want to solve is really critical. There are a number of MRFs in Connecticut that want to keep funded and have good, high quality material in the state so how do we get it to them? There are different kinds of packaging material and that's going to continue. Packaging innovation will continue. Getting away from the concept of "just because it's recyclable means that packaging is good" and "just because packaging isn't recyclable it's bad" is something we need to be careful about.

That's a critical distinction and it's an argument we've fallen back on many times. That's simply not the case.

Chairman Bell: Remember one thing that this Task Force is mandated to look at is the reduction of consumer packaging. Yes, we agree with your statements on food waste but we are mandated to look at policies on consumer packaging side. I agree with the need for packaging and the LCA.

- **Mr. Metzner:** There is a lot I can agree with you on with food waste and composting. You said we need to put more resource toward it. I'll hold you to the "we" in the future.

Regarding packaging design, I accept and agree that what is presented by manufacturers is that they have the environment in mind and are doing things to light-weight. They have many things to consider beyond just recyclability. I get that and don't think we should be dictating what type of packaging to use.

As you mentioned, once all that is done the consumer brings something home. Your members have derived the economic value of the package because of the cost. It now comes home to the consumer where it has no value. You can get paid to recycle but the net cost of collection doesn't exceed what you get in revenue. There is an externalized cost. Would you agree that the municipality has to collect waste and litter? It's going to go into waste-to-energy or recycling. Both of those cost money. In essence, do you agree with the concept that the manufacturer has externalized costs onto society both economic and environmental?

Ms. Stasz: We continue to fall down this rabbit hole that if a piece of packaging isn't recyclable that it has an additional cost.

Mr. Metzner: Even if it goes into the garbage, it has a greater cost. Again, it's a cost that's put on society because garbage has to be collected.

Ms. Stasz: Yes, there are costs to collect waste. There are also costs to educate children, have drinking water and all sorts of things that governments and municipalities are in charge of providing. So saying that packaging is a separate kind of cost doesn't hold true.

- **Mr. Cassel:** Do you believe that different products have different costs for a MRF to recycle? Those materials and product going to a MRF – are there different costs in your mind? Some more easily recyclable? Some more valuable on the backend?

Ms. Stasz: Yes, of course. There are lots of different kinds of materials that MRFs want because there is a higher value on them.

Mr. Cassel: So your answer is yes. I'm just trying to understand. You don't like the policies you see as market disruption (like disruptor fees) trying to get higher-value materials into the recycle stream. Should the materials that have higher value subsidize those that have lower value? Is there a policy imperative or anything ok in GMA's mind which sends a signal to manufacturers to get them to send products and materials that have a higher value or lower cost in the back end so those who have higher value aren't subsidizing than those with lower value which does seem unfair in the market.

Chairman Bell: If you use a black container instead a clear container, it costs more for that MRF and adds less value.

Ms. Stasz: That is true. Again, the question is what are you trying to solve?

Mr. Cassel: What would you say we're trying to solve? We all recognize the complexity of it and are wrestling with this. We're trying to get lower costs, higher value, environmental benefits, cost benefits, consumer convenience, political benefits – it's very complex. How would you define it and, just to answer my question, is it reasonable to think there is something the state might do or any government to try to put some policies in place that encourage one thing versus another?

Ms. Stasz: The problem you're trying to solve is to reduce the amount of material that is being ultimately disposed in a landfill. You want to take those high value materials out of the waste stream and find ways to get consumers to participate in the recycling programs they have. If you look back at what Blue Box is doing, in theory, Blue Box in Ontario is really encouraging the use of glass which can be heavy and it breaks. There aren't a lot of MRFs that encourage recycling of glass as there isn't much money on the return end. It's very different signals.

Mr. Cassel: It's an important point. I'd like to follow-up. I'm interested if not this market disruption, then what? If this isn't it or that isn't it, then what? That's my question and I don't believe you've answered it.

Mr. Pesce: This public-private partnership with The Closed Loop Fund; the programs Nestlé discussed; the work these corporations have done in communities such as 700 bins in California. These are public-private partnerships that can be more efficient than taking money and putting it into some program that is state-run. This is what we're talking about and the balance we need to strike. Where is this money best utilized?

We can all agree there is an issue and we can get better. The question now becomes where does that money come from and how is it spent? I want to say that we have talked about five or six programs here already today that are happening right now, not necessarily here in Connecticut besides WRAP. We could take advantage of those programs and pull some of the resources from those programs to get some of that private money working here in Connecticut to educate folks. It's all about education. The manufacturers are all running away from the fact that it's going to cost more money to do business in the state. That's the elephant in the room. We don't want it to cost more money to do business here than it does over the border. The question becomes how do we work together – private, public – to get better and drive these packaging diversion rates.

IX. DELL

Stephen Greene, North America Restricted Materials and Global Restricted Materials Policy Leader
[Written Comments](#)

A. Presentation

Mr. Greene opened with wanting to discuss the packaging innovation that Dell has been working on. Innovation is just a small part of what Dell as a technology company does shipping products to consumers and to commercial business entities.

Mr. Greene described that one of the most important things that Dell thinks of when doing packaging design is the overall sustainability of the packaging. Does it work economically? Is it environmentally sound? Will it fit into existing recycling programs? Dell is fortunate that a lot of fancy packaging isn't needed for marketing purposes. The package also needs to be designed where it's manufactured around the world to take to the consumer's door. Because Dell has taken effort to look at design and use sustainable materials, the company has been able to put more product on a pallet with a lower carbon footprint and the packaging can be used to deliver directly to the end user.

The box (held up in the meeting) is 50% recycled-content (some post-consumer). The cushions on the inside are 100% recycled-content. All material is recyclable. There is some plastic packaging (a small plastic bag) to shield product while being moved to deal with vibration. With packaging, it needs to get the product safely to where it needs to go.

Dell has tried to remove as many obstacles to routine recycling. Corrugated recycling is available in almost all areas around the world. It's not a valuable commodity like some plastics, but it's a routine commodity. Dell estimates that 95% of the packaging is recyclable. There are some items not readily recyclable – the security tape, label and adhesives. Still some work to be done.

Mr. Greene express that the biggest concern Dell has is the additional cost of EPR programs will take the focus off of trying to innovate in order to deal with costs. Companies are locked into a fixed program anyway. It becomes a cost of doing business. Dell has done packaging innovation without having EPR. There has been influence from Europe but the overall objective was to get a recyclable, environmentally sound product.

Mr. Greene outlined Dell's recommendation:

- Dell is concerned with a patchwork of EPR programs around the U.S. Dell has significant costs associated with EPR programs for electronics takeback. Those end up becoming fixed costs and distract from doing anything new or innovative.
- Dell feels there is flexibility that, if we don't have a forced EPR program, but rather a cooperative relationship with trade associations that we can work together on and come up with common solutions. There are areas as an industry we can take advantage of such as adhesives on labels. Industry can work together to ensure it's less of a problem for recycling and long-term impact to the environment.
- Mr. Greene expressed there is a concern with having recycled-content requirements in packaging materials. Dell can do it and would be fine with it. But Dell understands that not all packaging and businesses would find it to be workable.
- There are a lot of trade-offs. There's not a single silver bullet. In reality, when companies have to spend more money to do something, it does go back to the consumer.

Mr. Greene wanted to leave the Task Force with the idea that we need to be aligned with the holistic approach to the circular economy. He suggested that the trade associations work together with the state of Connecticut to figure out the best way to do this without throwing one group under the bus versus another. Getting materials recycled, reused and putting it back into the

economy is important but the public needs to participate. That is key. The recyclable materials ban in the waste stream was discussed earlier. Massachusetts had the same thing and Massachusetts still has a problem with a lot of recyclables going to landfill. No one wants to take the stringent approach of some level of enforcement.

In closing, Mr. Greene stated we should anticipate that things set in place now will take a number of years to solidify/occur. Those, in turn, could lock the Task Force and Connecticut into poor decisions. What looks like a great idea today, in 5 years there'll be new technology and new approaches to doing things.

B. Question and Answer

- **Chairman Flower:** I will say that the innovations that have gone in your industry are amazing. But also with the packaging, we've seen a tremendous reduction in the amount of packaging and different types. Very little Styrofoam is used anymore and that alone has been a tremendous benefit to the environment.
- **Ms. Reilly:** You talked about the patchwork of programs that we currently see with EPR for electronics. Can you provide insight into Connecticut's program in terms of cost-structure and what you experience as a manufacturer and how that impacts your ability to design for the environment or make improvements in your products?

Mr. Greene: What we find in Connecticut is that, on a per-pound cost basis, it is the most expensive program in the U.S. I'll admit that we don't have a huge weight of products being sold here on a regular basis but it's an additional expense. It's an administrative expense. To run a program that is state specific takes additional resources to make sure you have accurate information, reporting structures, and the like. A lot of products don't sell directly from Dell into the state but are sold through distributors. So figuring out accurate numbers is challenging.

Mr. Cassel: I did want to say as the person who initiated the electronics negotiation 17 years ago, the patchwork of legislation is entirely the industry's result of them not coming together. I don't know how much you know about all of this. But it's because of the industry itself. The governments had many things on the table that industry could have agreed to in order to develop a model and make it harmonized across the U.S. That offer is still on the table today. I don't want to get into all of that or make statements. I'd rather have questions to enlighten people. But when there is information that's misleading, it's important to point out that a harmonized system is possible including on packing. It's done a on a state-by-state basis because you're not going to get a Federal law passed. The states are the laboratories and electronics has been the result of the industry, in a difficult situation, not being able to come together.

Ms. Reilly: My question was about his experience and goes back to exactly what we're trying to get to here. I was asking about the experience with the EPR program in the state of Connecticut and how does it compare to other programs. The reality is if we do something here in Connecticut and other states follow it is going to be the challenge of a patchwork. I was not trying to drum up negative experience, I was merely asking about his experience. Which is why we're bringing everyone to the table here today.

Mr. Cassel: Why I appreciate all the manufacturers nationally coming here is because it does need to be beyond Connecticut. We don't want to do something in each state that's different. I recognize that Connecticut's program is a challenge to the industry. We do need to look more broadly than Connecticut in this because you're all national and international manufacturers and we don't want a patchwork. I'm for the no patchwork, harmonized system in the U.S.

X. PUBLIC COMMENT

Mr. Flower invited public comments.

- Lawrence Truman, Citizen
Recommended that fruit and vegetables remain in packaging to avoid outbreaks of disease. Specifically recommended the use of Ziploc bags as a way to prevent the spread of disease along with the planting of Venus fly traps or use of solar bug zappers around garbage bins to stop the spread of disease through flies. Recommended getting trash picked up twice/week especially with leaching concerns of trash bins.

Noted the challenges with recycling plastic bottles in public spaces as well as access to places to claim deposits. Feels consumer lose when the state gets to keep the \$0.05 bottle deposit. Wants to see expanded scope of bottles covered under laws and through recycling programs (specifically in grocery stores).

XI. ADJOURN

Mr. Flower closed with the encouragement of the submittal of written testimony to Robin Bumpen, Committee Clerk, at Robin.Bumpen@cga.ct.gov. Copies of presentations, additional written comments, and a written meeting summary can be found on the Task Force [website](#).

Written comments were also submitted by [Amazon](#) and the [Plastics Industry Association](#) and can be found on the Task Force [website](#).

The next Task Force meeting is scheduled for July 19, 2017.