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

Wednesday, July 19, 2017
10:30am in the Gina McCarthy Auditorium
Department of Energy and Environmental Protection
Hartford, Connecticut

Task Force Member Attendees:

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

Absent: Alexandra Beaudoin

Staff Attendees:

- Ussawin Robin Bumpen, Committee Clerk

Invited Speakers:

- Flexible Packaging Institute, Alison Keane, President and Chief Executive Officer
- The Recycling Partnership, Keefe Harrison, Chief Executive Officer
- Citizens Campaign for the Environment, Lou Burch, Connecticut Program Director
- Yale University – Center for Ecology, Reid Lifset, Resident Fellow of Industrial Ecology

I. CALL TO ORDER AND WELCOME

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

II. FLEXIBLE PACKAGING INSTITUTE

Alison Keane, President and CEO
Written Comments
Supplemental Reports:
Materials Recovery for the Future
Sustainability Assessment of Flexible Packaging

A. Presentation

Ms. Alison Keane introduced the Flexible Packaging Association (FPA) which represents the manufacturers of flexible packaging and their suppliers. Flexible packaging is produced from a variety of materials (e.g., paper, plastic, film, aluminum foil, or any combination of those materials) and is used in bags, pouches, labels, liners, wraps, rollstock and other flexible products. Flexible packaging is used for food and beverage products; health and beauty items; pharmaceuticals and medical devices; and pet food and treats.

FPA supports source reduction and recycling while recognizing that there is no single solution for the management of flexible packaging waste. Solutions are influenced by equipment and infrastructure; collection methods and rates; volume and mix; and demand for the recovered material. Single material flexible packaging (fifty percent of flexible packaging waste) can be recycling through store drop-off programs. The other fifty percent can be used to generate energy feedstock through pyrolysis, gasification, or fuel blending. FPA has partnered with manufacturers, recyclers, retailers, waste management companies, brand owners, and others to develop end of life solutions for all packaging through a project called the Materials Recovery for the Future or the MRFF project.

Ms. Keane outlined the mission of MRFF – flexible material is recycled and the recovery community derives value from it. The pilot project last year used information and mechanical opportunities to tweak current MRF infrastructure to take this material and sort in an efficient manner for recovery. This year, the MRFF intends to do a full-scale demonstration project. As the first report of the MRFF states, analyzing the economics of recycling flexible packaging is almost as important as providing the technical capacity to separate and process material. The hope is to establish methods and equipment protocol for flexible packaging recycling in the future. FPA asks the Task Force to take into consideration for the report or its recommendations that FPA is still working on this issue to get it right.

Dow has a program discussed at the last Task Force meeting called the EnergyBag program which is making strides in collection and recovery of flexibles utilizing energy recovery solutions. FPA believes energy recovery should be an option in any sustainable recycling system to reduce solid waste going to landfills and derive benefits from collected materials. Two programs in Omaha, Nebraska and Citrus Heights, CA have proven effective in household participation and material collected along with reducing contamination of other material streams by separating out flexibles. Dow is set to expand the program with two new grants and guidance for municipalities to mimic success. Energy recovery is a viable option for flexibles and should be included in the Task Force report.

Fifty percent of flexible packaging is the single material which is recyclable. Fifty percent is multi-material because different products require different types of protection (e.g., barrier protection, prevent contamination, extend freshness, product protection by providing puncture, tear and burst resistance and strength). Flexible packaging uses fewer resources, generates fewer emissions, and creates less waste. It has the ability to package the most product using the least amount of packaging which reduces energy usage in both manufacturing and transportation.

Ms. Keane noted that flexible food pouches use less energy and generate less emissions during production; can package more material with fewer resources; and reduce waste by preserving shelf-life of food. (See specific examples on page 4 of the written comments.) Even when disposed, flexible packaging has less waste than other packaging types.

Ms. Keane lastly noted the importance of consumer engagement and programs like the Sustainable Packaging Coalition's (SPCs) "How2Recycle" label. Need to inform residents of the opportunities to recycle including programs like WRAP in Connecticut. Most consumers don't realize that the grocery store programs take not only plastic bags but also dry cleaning bags, bread bags, protective pillows and films, etc. Educating consumers about single material flexible packaging is a practical solution and can increase the amount going for recycling.

In conclusion, Ms. Keane stated that FPA believes the Task Force should promote policies and programs that look at the entire life-cycle of packaging and give credit to packaging with a lower environmental footprint; recognize energy recovery as a recycling option; and promote alternative infrastructures (e.g., store drop-off programs, consumer labeling programs.)

B. Question and Answer

- **Chairman Victor Bell**: It is confusing to include energy recovery when you use the word recycling. (*Note: This question on the meeting audio recording was cut off. Paraphrasing of the question based on written notes taken during the meeting.)*

  Ms. Keane: Energy recovery needs to be elevated as a viable solution and not downgraded as down-cycling or not part of the recovery system.

- **Chairman Bell**: The Task Force is looking at extended producer responsibility (EPR). Can you tell us more about FPA's financing of infrastructure for more than just the single material flexible packaging?

  Ms. Keane: Understand chemistry-wise that films and bags can be brought back to stores.

  Chairman Bell: According to the Federal Trade Commission (FTC), the only items considered recyclable under the FTC definition are the single-stream returned to a retailer that has a label from the SPC. This does not include PVC film, PLM film, candy wraps, etc. It is strictly only LDPE and HDPE wraps. Would like you to correct in your presentation.

  Ms. Keane: Not my understanding and they don't have the have the SPC label at this point. I will look at that and get back to the Task Force.

- **Chairman Bell:** Flexible packaging is considered a major contributor to marine debris. Other countries are implementing EPR to use funding for marine debris. What is FPA recommending as a funding mechanism and would you put EPR as a policy?

  Ms. Keane: No recommendations at this point. Do know that Dow is working with Ocean Conservancy, there is the Ellen MacArthur Foundation, and others looking into this issue. Flexible packaging is relatively new (around since 1960s) but fastest growing packaging type. Infrastructure hasn't been able to keep up with this new technology. We understand litter is a huge issue (ocean debris and on land). We are fervently looking for solutions that we want to widely share but we're not there yet.

  As far as EPR for financing, it's a little premature because we don't know what we're financing yet. Once solutions are found, a financing mechanism will need to be put in place to either create new infrastructure, tweak the current infrastructure, or whatever other solutions come down the pipeline.

  Chairman Bell: Do you agree long-term infrastructure is needed for the communities?

  Ms. Keane: Correct.

- **Chairman Will Flower:** Noted that the Battelle study would be posted on the Task force website. You stated that the Task Force should promote policies and programs to look at the entire life-cycle of the packaging and give credit to packaging with lower environmental footprints. Give us some specifics we can recommend to the General Assembly on ways we can do that.

  Ms. Keane: FPA has been discussing this with California on their 75% mandated reduction. Using the term recycling very narrowly, it doesn't allow communities to take credit for waste reduction before it gets collected and recycled. Before we see bans or restrictions or higher financing of non-recyclables, we'd like to see a system in place for credit of upstream environmental benefits.

  Chairman Flower: Please think of very specific recommendations on laws, rules, regulations, policies or programs that could address how to reduce solid waste. Clearly the flexible packaging industry has done a tremendous amount to reduce the amount of waste and amount of packaging needed for the products the packaging is protecting and preserving. That is duly noted.

- **Mr. Hap Perkins:** Sounds like industry is doing a lot of initiatives to help reduce waste and understand the environmental impact of your products. What is incentivizing you to do that without any fees or regulations? Why would fees and regulations induce you to do this more?

  Ms. Keane: The reason we're doing it without it is because it reduces our costs. If you're a manufacturer and you can fill 1 truck versus 4 trucks on the road, then you're going to go that direction. We're also moving in this direction because consumers, retailers and consumer product companies are demanding it. Consumer product companies are looking for the same efficiencies and same good stories to tell their consumers. We will continue to move in that direction regardless of regulatory or legislative pressures.

  Regarding regulatory and/or legislative pressures, we want to make sure they're the right solutions. What we don't want to see happen is that infrastructure is built for A but 20-40 years later we have B and C. We want to ensure options are flexible to allow our industry to grow as well as allow the recycling, recyclability and recovery methods to grow along with it. We don't want to stifle innovation and/or ban materials until we know what we can do with them in terms of waste management.

- **Mr. Tom Metzner:** Waste to energy is specifically not recognized as recycling in Connecticut. You mentioned life-cycle analysis and we see a lot of benefits from light-weighting and food preservation. Do you feel there is a break-off point (de minimis level) that the benefit is so good that it's not worth investing in recycling because the volume is so small, burned in waste-to-energy, etc. Is there a cut-off in which the financial investment in increasing recycling isn't worth it?

  Ms. Keane: We're not there yet. This is what the MRFF project is looking at – have we found viable recovery solutions; is there value in the material; if yes, how much; if no, how much will we spend to get this material. With the example of latex paint, it cost more to pick-up and recycle than the benefit but it was the right thing to do from a litter and water waste management perspective. We don't know the answer yet for flexibles. Even if we figure out

that answer is negative (e.g., cost more to pick-up), we need to look at the benefit from a litter and ocean debris stand-point.

Mr. Metzner: Do you think of that in terms of cost per unit? Is that what determines whether you proceed?

Ms. Keane: We do not know yet. The great thing about flexible packaging is the innovation and every six months something new is coming out. The bad thing about flexible packaging is that every six months something new is coming out. You solve one problem and you're hit with another. There really are smart individuals, task forces, and working groups that are figuring out how to move as we innovate toward something more sustainable and recyclable that can fit into existing or tweaked infrastructure. But we aren't there yet.

- **Chairman Flower:** Give us experiences when a city, county or state goes out on its own and adopts a piece of legislation that bans or requires a product to be packaged a certain way. What are the economic disadvantages that are put into place for the product manufacturers?

  Ms. Keane: We don't like anything that limits opportunity. Anytime you ban something it limits opportunity. There are also unintended consequences when you ban something like the plastic bag bans. Yes, it contributes to litter but it's one of the easiest things to recycle.

  The other economic impact is that we don't manufacture for specific states; we manufacturer for the U.S. or global. To interrupt that supply and put in a system to ensure your product doesn't end up where it isn't supposed to be is expensive and disruptive. FPA is in-between the consumer product manufacturers and producers which means we're at a disadvantage in trying to supply FPA members' customers with something that may or may not work. Responsibility becomes difficult in the supply chain.

- **Chairman Flower:** Can you discuss what manufacturers are doing to include recyclable materials in the content. Are you purchasing materials to create a market demand for the recyclables being recovered?

  Ms. Keane: That is one of the focuses of the MRFF project. From an industrial standpoint, everything is either recycled or recyclable. There are challenges from the FDA side with medical and pharmaceutical products and on the food side. From regulatory or health and safety perspective, it has limited us to have recycled content in the package.

- **Mr. Scott Cassel:** Can you tell us the percent that flexible packaging makes up of packaging?

  Ms. Keane: Will need to follow-up. It is fairly small.

- **Mr. Cassel:** Can you describe your personal experience with EPR for paint and the differences you may see for flexible packages or packaging in general? As you noted, your members aren't the brand owners that would have to pay although you're in the supply chain.

  Ms. Keane: From paint perspective, we were a proponent of EPR and it worked very well. We had one association that represented the vast majority of paint manufacturers who were also the paint brand owners. It was easy to then make the decision that EPR was the right option

and the brand owners could "own it" versus writing a blank check to the local governments or a general fund. The industry did take ownership but it was more difficult than anyone anticipated as far as getting legislation passed and working a state-by-state system. It would have been preferable to have one national program.

Flexible packaging and packaging in general is much more complicated. There are many associations and manufacturers. Most manufacturers make multiple packaging types. No consensus even among bigger manufacturers of packaging on how, what and where. Unlike paint, there isn't that methodology yet and it may differ vastly for collection and recovery based on packaging type. There is a disconnect with different types of packaging and innovation makes it difficult to find a viable solution that's cost-effective and can be agreed on.

- **Mr. Cassel:** In terms of a process to figure this out, you're working through MRFF. How do you involve all the stakeholders? What process would help FPA and others to figure out the complexity in the packaging world?

  Ms. Keane: We need to come together with all the different reports. MRFF is specific to flexibles. The Ellen MacArthur Foundation is not specific to flexibles but specific to plastics. All these reports are highly technical and should be dumbed-down and compiled for viable solutions we need to test or bring forward to a legislator.

  Would also be great to see more about what's happening in Europe and Canada if they're successful.

- **Chairman Bell:** Creation of a separate stream for flexibles into a bag that goes out with containers. Sort of a hybrid of a single-stream recycling system. Can you explain challenges with single-stream recycling and your materials?

  Ms. Keane: It comes down to consumer education. If the bag isn't closed or in a bin, flexibles tend to float around and become litter and ocean debris we don't want due to their lightweight nature. That's why the hybrid approach was developed to feel like you're putting it into your blue box. But you're actually putting it in a bag next to your blue box. But again, the consumer is the ultimate arbiter of whether or not they do it and do it right.

- **Ms. Katie Reilly:** Can you give an overview and summary of the MRFF project? And how you're working with the MRFs and the community programs feeding into those MRFs?

  Ms. Keane: We haven't done the community yet which will be part of the demonstration project. The first project was the pilot project with MRF Emterra in Canada. We used new structures – pouches or film from manufacturers before it was used. We tweaked the optical sorter and other sorters to get it to not contaminate the paper stream over several rounds. Because the material is so lightweight, it would send the material in a direction where it would end up back where we didn't want it. Contamination is a big concern that we don't want to negatively impact the good work MRFs are already doing.

  The demonstration project will be post-consumer materials and in the U.S. It will be focused on getting the current infrastructure tweaked enough for the collection infrastructure to start

accepting it. The second part, we determine who gets the technology and what do we do with it.

Ms. Reilly: Overall has the feedback of the MRF with this project been positive?

Ms. Keane: Absolutely. Unsure which U.S. MRF yet for the next stage, but the folks in British Columbia have been working with Emterra. British Columbia has an EPR program where flexibles pay but flexibles aren't picked up and recovered. We want to make sure that doesn't happen.

- **Chairman Bell:** How do you feel about deposits regarding beverages and flexibles?

Ms. Keane: It is hard for me to say because I don't represent the manufacturers and FPA members aren't directly impacted. On any fees, whether deposit or EPR, if there isn't an infrastructure for it we would be against it. If we're paying for something, it has to exist.

III. THE RECYLCING PARTNERSHIP

Keefe Harrison, Chief Executive Officer
Written Comments
Supplemental Reports: The 2016 State of Curbside Report

A. Presentation

Ms. Keefe Harrison introduced The Recycling Partnership (TRP) as a three and a half year old national organization in the midst of an overhaul of the U.S. curbside collection system. TRP has worked with over 400 communities; helped 400,000 families receive new recycling bins; and leveraged infrastructure worth about $27M. TRP works closely with all sectors across the recycling supply chain. Most work is delivered in the initial interface of the beginning of the reverse supply chain for recycling. TRP works with communities and in-between communities and the private sector to set-up more efficient programs. Everything TRP does is focused on increasing access or optimizing existing programs.

No formal presentation provided. Mr. Harrison opened up to questions from the Task Force.

B. Question and Answer

- **Chairman Bell**: Commended the work of TRP to increase community recycling. What do you think is necessary for long-term financing to maintain the systems in the U.S.?

Ms. Harrison: TRP's model was built after a series of events starting with the EPA dialogue between packaging producers, retailers and governments on how to form better public-private intersection for recycling. Those dialogues resulted in several other initiatives. AMERIPEN began to assess the role of packaging producers in recycling. Alcoa launched the Action to Accelerate Recycling which was again the public-private intersection. Then EPA's funding for an exercise around system change. By that time, the right individuals were in the room to design a model that would impact the recovery landscape by fixing the major broken parts – access and poor function of existing infrastructure. There has been capital investment in industry but TRP understands that 20M tons of packaging and recyclables are left on the table which has a $1.8B MRF value (carbon equivalent of 10.5M cars off the road every day).

In the U.S., TRP works within a voluntary structure. When you see healthy recycling, there is either a government model or a voluntary one supporting it; industry alone does not deliver what everyone needs it to as far as recovery. TRP model was built to be the voluntary one to impact change right now.

TRP doesn't work on overhauling the funding model. TRP leverages corporate dollars in the public sector to help make change. Leverage on grant dollars is about 1:7 (every $1 TRP puts in leverages $7 more) to make change in communities. TRP is not a financing model.

- **Chairman Bell**: Leveraging your background and understanding the capital needs that exist, financial challenges with cities/states, and value of recyclables, how do you see getting funding into the system to be able to accomplish what is necessary?

  Ms. Harrison: TRP just released new data mapping of communities over 50,000 in the U.S. to understand what kind of recovery system they have: recycling system or not; bins vs. bags vs. carts; high performing vs. low; and how much material is left and how much would it cost to get that material. Still finalizing data but trying to understand the true national landscape and capital landscape to make that change. Getting closer regionally but no national numbers yet.

  Extensive background in recycling (19+ years) of providing technical assistance, to help connect sectors, improve local governments, etc. It's important for packaging producers to understand why local governments offer recycling. Local governments don't work on an ROI for decision making; rather they work to provide a service. Their metric of successful service is measured by customer satisfaction (e.g., are residents happy?). Drivers for local governments are how they provide service versus what a MRF needs in terms of quality and quantity. The disconnects we see between the drivers of each sector are also what we need to keep in mind when evaluating the costs; what the city needs to keep residents happy with providing the service versus what the MRF needs to see in how the city provides the material.

- **Chairman Bell:** As TRP goes to single-stream with big bins, how do you solve the glass issue? Connecticut has deposit legislation but there's still a lot of glass in the system (e.g., spirits, etc.). What solutions do you see?

  Ms. Harrison: Glass is difficult and TRP has been working on it for the past three and a half years. Communities want to keep it in and are eager pay for that opportunity when they can because their citizens want it and expect it. We have worked with communities like Santa Fe that have needed to remove glass from their system. We have to work hard with political officials to explain why there aren't glass markets or MRF options. It's a case-by-case situation for how we help communities. We don't just give grants and education to communities to help them recycle; we dig in to solve the problems across the sectors. When the glass markets changed in Greenville, South Carolina, we worked hard with the MRF and Strategic Materials to identify alternate ideas (e.g., proximity to processing facilities, milk-runs, etc.). We weren't able to find a good solution in that situation but in others we have.

  Along the way, TRP continues to work through its MRF Working Group along with its Recycling Technical Council to ensure TRP isn't just reactive to the changes of the industry but tries to steer and protect recovery as much as possible.

We are recycling realists by working with what the system can manage now and trying to protect the future around recycling. To the consumer, glass is one of these most iconically recyclable materials. If a community tries to remove glass, how do they do it in a way that doesn't rock confidence in the system? Consumer confidence in a recycling program is one of the key drivers of participation and good participation to keep contamination out. Consumer interface and trust in system as a whole is key.

- **Chairman Flower:** We all know the basic rule of recycling – if there are no markets, there is no recycling. Do you agree with that? What suggestion would you make to foster, develop and support the development of markets for various materials?

  Mr. Harrison: Yes, recycling responds to markets. But take it a step back. One foundational understanding is that recycling exists to fuel manufacturing. Without the manufacturing sector, we have no recycling. The process of recycling is creating feedstock and that feedstock has to compete with virgin on three levels: cost, quality, and quantity. When it can't compete, it loses market share. When it loses market share, we lose the environmental and climate impacts we need from recycling. Understanding the market drivers and what we can do to balance the playing field between virgin and recovered to get those environmental gains is important.

- **Chairman Flower:** Recycling and packaging materials have continued to evolve over time. Example of cardboard in curbside. What can we do to encourage some of that transformation to continue to make recycling better?

  Ms. Harrison: The intersection between innovation in packaging design and the way that recycling works, how do we finesse to get as much back as we can? When working with individual companies or packaging producers who are frustrated that they're not seeing a reaction in the recycling world, we must stop and explain why recycling happens. It happens because an entrepreneur saw a pile of "like stuff" and figured out how to make money off of it. The job of packaging producers is to create something that has enough end market value that its worth someone to reprocess it into a feedstock; that is worth a MRF to accept it, sort it, and sell it; and it is worth a hauler and community to pick it up and get it there. So if you want to look at how we develop a more robust and diverse recycling landscape, it's not how we get a recycling label on the product; we actually need to start at the other side with the end markets.

  Some of the tools developed through TRP's ASTRX collaboration with Sustainable Packaging Coalition (SPC) help that process by giving a checklist that states, "to employ end market receptibility, you must meet these criteria". It's breaking down the system to understand where pinch points exist. Links to those tools be found in TRP's written comments.

- **Ms. Katie Reilly:** Going back to how TRP is engaging with local communities. What are the expectations about the resources that local governments are required to bring to the partnerships TRP is launching?

  Ms. Harrison: Example of statewide collaboration in Massachusetts where TRP developed tools for state infrastructure to launch with their grant dollars in communities across the Commonwealth. Other examples include Atlanta, Chicago and Denver which are programs

where TRP is optimizing existing infrastructure. Can also talk about Saint Paul and Santa Fe where TRP helped put new carts on the ground. Each meet one of TRP's two criteria: growing access or optimizing existing infrastructure.

TRP has expert staff (growing from one staff to 15 in three years) and everyone is dedicated to meeting the city where they are and taking them to the next level but the city has to have "skin in the game". When TRP comes forward with in-kind support (human capital) as well as fiscal capital, it's because we've worked with the City to get to the next step. In Chicago and Atlanta examples, it means meeting with Mayors and their finance teams to understand how cities are performing in comparison to other cities their size. Then looking at the operational perspective including contracts to identify strengths and weaknesses to figure out where improvements can be made and cost of return.

TRP's work with communities whether launching new cart programs, optimizing existing infrastructure, or working on a state-level to develop new tools, we start first with a gap assessment and focus first on the operational, service providing side.

Ms. Reilly: Knowing that local communities have to bring their own resources to the partnership, do you find TRP is having to seek out partners or finding the local governments coming to you?

Ms. Harrison: Both. We like being oversubscribed with help. But we want to go after the communities that don't have the ability, bandwidth, structure or desire to come to us. Our ability to map the national landscape of who has no recycling but should, who has bins but should be in carts, and who's under-performing does allow TRP to prioritize requests coming in but also seek out relationships with those that are a long way away which can take years. The example of Columbia, SC where the state had been working with them for years. They were accepting about 75 lbs./household/year (compared to TRP goal of in excess of 400 lbs./household/year). TRP was able to catch the ear of City Council with a $250,000 grant to get the community to the next level including recognition from the Mayor.

- **Mr. Hap Perkins:** Impressed by metrics, financial acumen, problem identification, etc. Don't understand operations of TRP. Is it just donations and grants? Do you charge fees? How are you working?

  Ms. Harrison: TRP is a 501(c)(3) and is corporate and donation funded. In past three years TRP has gone from six corporate funders to 30 funders. TRP has seen a more than four and a half fold revenue increase to deliver resources to communities and states for free.

  Ideally we come into a state like Massachusetts or Tennessee and leverage TRP's resources against their own grant dollars so the communities can get even more.

  To date, TRP has not done any fee for service outside of two examples that asked for something very custom. In general, TRP does not charge community partners but instead asks them to meet TRP with funding.

  Mr. Perkins: Is most of the funding public, private or both?

Ms. Harrison: Both. In the written comments, there is a link to the 2016 State of Curbside Report and link to TRP's website with all corporate partners (brand owners, retailers), supply chain representatives, and EPA. TRP wants to ensure we're not only good partners for those who fund us but also those who need us to succeed which is why we immediately convened a Technical Council which are strategic individuals working in different sectors to see recycling succeed. We are very mission driven and growing revenue but focused on meeting needs of industry as a whole.

Mr. Perkins: Do companies seem to have a natural inducement to help without being regulated?

Ms. Harrison: They certainly see a need for it. Everyone who joins TRP wants to see one thing happen – better recycling. But they all want to see it for different reasons. We have to translate our metrics into what each funder needs. That might be supply of recyclables or carbon and greenhouse gas emissions reduced through projects to help meet corporate goals. There's also brand protection since there is a risk for not being responsible for what you as a company have put out there. If it's not recyclable, then it becomes "branded trash". So yes, there has been earnest interest in TRP to do more and belief in its mission to deliver additional metrics.

- **Mr. Tom Metzner:** In reading your State of Curbside Report, you have recommendations such as single stream, government actions, carts vs. blue box. Connecticut does all that stuff and it looks like we're at 387 lbs./household/year which is just a little bit better than average. Is this an apple to apples number when you look at pounds per household? Are these state numbers and is there discrepancies in how it's reported? Generally speaking, why is Connecticut so far behind these leaders?

  Ms. Harrison: That's a great question. We don't have apples to apples in our industry. Our national rate, state specific metrics and city specific metrics are not comparable. We try to get to a pounds per household served. That's generally measured by in-bound MRF data reported by the MRF to the community. Trying to distill that into what's happening at a household level is a "pure number" for the recycling rate. The more we can develop these data points will allow us to compare apples to apples.

  What's most exciting is when we have the funding to take that even further to work on capture rate studies. TRP is just starting to get in capture rate studies in from Atlanta, Chicago and Denver that measure how much trash is in the recycling and how much recycling is in the trash. We do these before and after our work to show the change. Working on releasing tools and grant funding to help communities and states measure that way to help build a better apple to apple comparison.

  In Atlanta, we're seeing the shift in packaging format. Paper used to be 70-72% of the waste stream. Available paper in Atlanta is now about 50%. The ability to get closer to apples and apples is something we're working on to make available to everyone.

  Chairman Flower: As a follow-up, if some states calculated weight from curbside households that would not include material that people took back in a buy-back or bottle bill programs?

Ms. Harrison: In Massachusetts, it was material going through a MRF. Anything independent from a MRF such as bottle deposits would not have been part of the capture rate study. We would need to be able to calculate in the data for material being recovered outside the MRF.

Chairman Flower: If you were in two different states where two different households were recycling 1,000 lbs.: one household was recycling 500 lbs. at curb and 500 lbs. through other means (e.g., buy-back, bottle deposit) and the other household was recycling 1,000 lbs. at the curb. One would show half the recycling rate but in reality they're recycling the same amount.

Ms. Harrison: Correct. If comparing two households in two different communities that are both putting recycling in bins but one is also taking bottles to a deposit, we would need a way to capture what's going through the deposits.

- **Chairman Bell:** With bins, we have "wishful recycling". What work has TRP done on numbers of contamination and the prevention of wishful recycling?

  Ms. Harrison: We deal with retro-cyclers (the way it used to be) and wishful recyclers regularly. In my written recommendations, I linked to contamination reduction tools and cite some figures of impacts. In Massachusetts, we were able to reduce the percentage of targeted contaminants by thirty percent in the curbside stream and fifty percent in the drop-off stream.

  A few things we've found around contamination. First, contamination is very costly to the entire system. As a collective industry the better we understand that cost, the better we can figure out how to reduce that. It's not just a MRF and community relationship; it's a system-wide problem. (TRP forthcoming White Paper.) Second, the biggest misconception is that communities try to fight contamination with public education alone. TRP's comparative testing of public outreach versus operational + outreach demonstrates that consumer only hear from public education that they're great recyclers or that it's too complicated. TRP works to help communities understand that there is a MRF to community conversation to understand biggest impacts on the MRFs and then getting your "house in order" (i.e., how community it providing service). Final recommendation is around measurement. Items most costly to MRF are light (film, plastic bags, Christmas lights). When assessing contamination rates by pounds, we're looking to assess better ways to measure along with cost and how to stop contamination.

- **Chairman Bell:** Mentioned your study on infrastructure needs around the U.S. What are you doing in the study to look at, once needs are there, what mechanisms are needed for funding?

  Ms. Harrison: It's a national problem and solving will take collective efforts between initiatives. We are working on an approach to funding, but we know there isn't one way to do it. TRP exists because it's necessary to recover more packaging to solve environmental problems.

- **Ms. Reilly:** Are local governments seeking you out just for financial resources or more for technical assistance?

  Ms. Harrison: When model was built, TRP anticipated a greater demand for fiscal capital. What we're finding is that there is a greater demand for time, problem-solving, best

management practices, etc. The human capital demands exceed the grant capital demands. It's best when they're paired.

- **Mr. Scott Cassel:** It sounds like there are three specific things TRP offers: technical assistance, carts, and education.

  Ms. Harrison: Close. Technical assistance, grants (carts or outreach/education), and education collateral.

  Mr. Cassel: How much money have corporate funders provided/committed?

  Ms. Harrison: Since 2003, I don't have a cumulative contribution. However, can give specific investment such as Coca-Cola at $2M; Can Manufacturers with a multi-million dollar investment. Our operating budget for 2017 is just under $5M.

  Mr. Cassel: You mentioned government grants. The Task Force wants to figure out costs which comes from private sector or government. Can you provide data about the share?

  Ms. Harrison: When we provide a cart grant, we see a 1:7 leverage. We are looking at a $7 reduction on a $50 cart plus an up to $50,000 education grant. For every $1 we put on the table, we need the local funding to come up with another $7 to make an infrastructure project work when growing access (e.g., putting carts on ground). It's a different leverage when working with communities like Atlanta, Chicago, and Denver to increase efficiency which is more a 1:1 or 1:2 relationship.

  What is the price tag? The work we're doing to determine the capital landscape and need to get a real price tag will benefit groups like this one.

- **Mr. Cassel:** Do you have a specific goal for the rate or number of municipalities over X population you want to work with? Once TRP has reached its goal, how close can that get Connecticut to its 60% goal?

  Ms. Harrison: From access research with SPC, it was determined that while recycling feels universal, only half of Americans can recycle at home as easily as they can throw something away. The standard methodology for measuring access is that there is access if one drop-off program exists in a county (whereas trash is picked up at the curb). TRP feels that's inadequate. First goal is to get from half to 100% of Americans with access to easy recycling.

  From capture rate studies, we've determine that of households actively recycling, we're only getting 40% of what can be accepted. We need to work on optimization. With data, we should be able to put a price tag on that.

- **Mr. Ed Spinella:** If we summarized your report, the keys I took away were as follows and I'd like your confirmation if I am correct. First, TRP looks at individual community or state laws and regulations to determine if state or communities have appropriate legislation for recycling and do they enforce it.

  Ms. Harrison: Not sure that's our report. *(Did not confirm that was accurate.)*

Mr. Spinella: TRP looks at community and state's collection infrastructure to determine is it convenient, widespread and economical?

Ms. Harrison: Correct.

Mr. Spinella: TRP looks at whether or not a local community has access to effective and convenient MRFs to process recyclables?

Ms. Harrison: Correct.

Mr. Spinella: Do you have any familiarity with Connecticut to determine if we have appropriate laws on books, sufficient infrastructure for collection, and sufficient infrastructure for processing?

Ms. Harrison: Yes, I do along with my Technical Assistance team. We are preparing a map of where we lack access and optimization in the U.S. We can layer that over the MRF infrastructure which helps point to gaps. While we don't measure a state's ability to meet their mandate, we do understand which states have goals, regulations, grants and data so we can begin to determine where leverage points exist.

Mr. Spinella: You're saying that one of the things the Task Force should do is review, evaluate and assess what Connecticut has in place for regulations in statute, what it has in place for a collection infrastructure, and what it has in place for a processing infrastructure.

Ms. Harrison: In my recommendations, I didn't make the suggestion to look at the regulations but it is an important component of what we understand. Although TRP doesn't drive for policy, we do understand that there is policy that makes recycling better. It is a component of a healthy system. Policy alone doesn't always drive a healthy system. Where we see effective policy, we also see a correspondingly improved program if there is the operational aspect and community involvement.

- **Mr. Spinella:** Connecticut did a waste characterization study in 2015. In the waste characterization study, it was determined that 17.2% of the disposed MSW consisted of mandated recyclables. Assuming you have in place the right policy, perfect collection system, and perfect processing systems, what is an acceptable level of mandated recyclables in the MSW? You said you are recycling realists. What is a realistic, acceptable number of mandated recyclables in the MSW?

  Ms. Harrison: We have not developed that or established a number.

  Mr. Spinella: Would you agree there is some percentage acceptable? Even in perfect world, we'll still have mandated recyclables in the MSW.

  Ms. Harrison: I wouldn't agree it's acceptable but I would agree it's understood.

IV. CITIZENS CAMPAIGN FOR THE ENVIRONMENT

Lou Burch, Connecticut Program Director

Written Comments

A. Presentation

Mr. Lou Burch introduced the Citizens Campaign for the Environment which is member supported, non-profit organization with 80,000 members between Connecticut and New York. The Campaign is focused on public education, research and grassroots organizing on environmental, public health, and energy issues.

Mr. Burch started by noting that, according to the EPA, food packaging accounts for up to 23% of material going into landfills in the U.S. and makes up much of the litter found on beaches, open space and waterways in addition to other adverse environmental impacts (greenhouse gas emissions, infrastructure impacts, adverse impacts on wildlife).

Mr. Burch noted there are multiple strategies that can be adopted by Connecticut to reduce the amount of waste packaging which typically falls into one of three main packaging reduction strategies:

- Source reduction (preventing waste before it's created);
- Reuse; and
- Recycling/composting.

By incorporating common-sense approaches, we can change the way we package material. Some are specific policy solutions while others are best practices but each require a public education component.

Mr. Burch first summarized the policy solutions:

- Extended Producer Responsibility (EPR) Models: EPR is important because, by requiring manufactures to offer recycling services for their products, we obligate them to internalize the costs of the pollution they produce. This incentivizes them to use less excess packaging to keep as cost-effective and competitive as possible. Example of EU standards in 1994.
- Expand Recycling and Composting Access: Working with state and local governments to expand convenient access not just at curbside but also in public spaces and various establishments. By making options widely available, it becomes easier for the consumer to recycle/compost.
- Modernize and Expand Connecticut's Container Deposit Model: Connecticut has a container deposit law on beer bottles, soda, and water bottles. While container deposit programs are proven incentivizing systems for reducing litter, those programs need updated over time to keep in line with market trends, inflation, etc. Connecticut's container deposit hasn't been updated since the 1980s and deposit amount hasn't kept up with inflation or market trends in bottle types. Could implement container deposits on other types of products (e.g., glass jars, plastic bins, etc.) to incentivize recycling.

Mr. Burch next summarized best management practices for adoption by businesses:

- Expand the Use of Self-Serve Groceries: By shifting retailer sales toward self-serve packaging (similar to the way stores sell candy, etc.) to reduce excess packaging and food

waste. Consumers can determine volume that makes sense through scales and individual bags.

- Reusable Bags: This can be policy or voluntary action. Retailers can cut down on plastic bag pollution by placing fee on single-use or eliminating all together. Retailers can help shift consumer behavior toward reusable bags.
- Reusable Packaging: Shifting toward packaging that is completely recyclable, compostable or reusable.
- Reusable Tableware: Reusable plates and silverware.
- Composting: Offering composting in grocery stores, restaurant dining rooms, cafeterias and public spaces reduces food waste and has other environmental benefits.
- Bulk Purchasing: Cuts down on excess food waste and packaging.

Regardless of policy or voluntary approach, a robust public education campaign is critical. Social marketing techniques are effective on educating on the importance of a given action but also on giving easy steps consumers can take to achieve a goal.

Mr. Burch concluded that it's known that public education alone cannot achieve the goals outlined by the Task Force. Strong policy solutions are needed where appropriate to ensure businesses and industry makes the transition along with consumers.

B. Question and Answer

- **Mr. Perkins**: One suggestion was EPR. Do you have empirical evidence that EPR actually reduces packaging and steers the producer to a more environmentally focused package?

  Mr. Burch: EPR for packaging is somewhat new. What we know from EPR on other types of material (e.g., electronics, paint, mattresses) is that it helps to internalize costs to industry. There is also evidence that consumers are shifting toward businesses with environmentally preferable practices.

  Dell was the first manufacturer to offer a voluntary EPR program for electronics. Once Dell made that move, we saw it economically incentivize other businesses to make a similar move to keep competitive.

  Mr. Perkins: You made a comment that EPR will reduce the amount of packaging. Does EPR have a direct impact on reducing packaging?

  Mr. Burch: I can't offer empirical evidence on the packaging aspect. EPR models have been proven to be effective in incentivizing recycling and improved efficiency.

- **Mr. Perkins:** Do you look at the total environmental impact? There's a whole life-cycle analysis including transportation costs, handling costs, etc. When you state that plastic containers are better than cardboard, do you take in the whole life-cycle analysis?

  Mr. Burch: There are always trade-offs when it comes to solutions. In some areas it may make sense to transition to plastic versus cardboard because of the number of uses. The net benefit needs to be look at.

- **Ms. Reilly:** Were you stating that EPR will help drive design for the environment?

  Mr. Bruch: I think it will. Even though we talk about internalizing costs, we know ultimately they get passed on to the consumer. In the interest of a sustainable business model, we feel strongly that EPR models can help do that. When businesses and industries take steps toward using less packaging and keeping competitive, the philosophy is they'd look for cost-effective and environmentally friendly practices.

  Ms. Reilly: Are there examples from those other industries that this has been the case? Or have there been other market drivers? What are those examples?

  Mr. Burch: Electronics is a great example and one of the original examples of EPR programs. I can provide data with testimony.

  Ms. Reilly: Would appreciate seeing what data and evidence exists that EPR, not market forces, has driven design for the environment for electronics.

V. YALE UNIVERSITY – SCHOOL OF FORESTRY AND ENVIRONMENTAL STUDIES

Reid Lifset, Associate Director of the Industrial Environmental Management Program

Presentation

A. Presentation

Mr. Reid Lifset began by discussing packaging related challenges in Connecticut including:

- Viability of municipal recycling;
- Flexible packaging in the "evolving ton";
- Glass packaging;
- Corrugated boxes in the residential waste stream; and
- Marine plastics.

Ms. Lifset outlined the challenges with municipal recycling. The "evolving ton" refers to the change in the composition of the waste stream and recyclable waste streams that challenge MRF processing and, in some cases, markets. China is imposing successively stricter restrictions on imports of recyclables having a dampening effect on markets primarily for plastics. And the low price of oil and gas makes virgin plastics more competitive with secondary plastics. These put lots of pressures on our municipalities. In addition, Connecticut has enacted a policy that it wants to improve recycling rates.

Flexible packaging is a complicated issue for the waste stream and recycling. We see a shift away from paper, a change in actual rigid plastics, and of course more flexibles.

Glass is a bit of a nightmare. Per the Connecticut 2016 report, 17.4% of the residential recyclables in single-stream recycling are glass; 46% of glass arrives broken at the MRF; less than 40% if the glass is recycled; and it costs about $20/ton for disposal. This is a problem for contamination of other recyclables; it's an issue for the actual recycling of glass; and it's a problem for wear on the equipment. Consumers think of it as the ultimate recyclable material. People in the industry want to run away from glass.

Marine plastics is growing in terms of public awareness and the science is developing quite rapidly. Some plastic comes from packaging but not all of it. Plastics must be captured so they don't enter aquatic environments. Pressure will only grow from the public and technical community.

Old corrugated containers (OCC) is shifting from commercial waste stream to residential waste stream. It is difficult to fit in bins and it suffers from contamination from glass and other recyclables. It's an opportunity in the residential recycling stream because it has strong market values. If we can figure out how to successfully collect and process OCC, it's a real boon in the world of an evolving ton that's going the other way.

There are a lot of ways to approach unrecycled packaging in the waste stream:

- Status quo which means to do nothing.
- Voluntary programs but Mr. Lifset noted his skepticism on voluntary programs. The academic research/literature says that as a substitute for public policy, voluntary programs (in general, not packaging specific) rarely amount to anything due to:
    - Lack of data or lack of comprehensive and transparent data; and
    - Lack of strong results relative to other policy approaches.

  If the goal is to increase recycling rates of packaging, these projects tend to have short time-span and lack sustainable financing.
- EPR will address some issues and will infuse more funding into the system. When looking at the packaging challenges mentioned, it really depends on the type of EPR system set-up and how it's structured. EPR does some things such as more funding for municipal recycling, it doesn't tell about outcomes unless you get into the details (e.g., materials covered, fee structures, etc.). EPR takes many forms and the structure is important to define what it will do.
- Bottle bill expansion is also important to consider especially for glass as a way to get it out of the single-stream waste stream (e.g., lower contamination, higher value of glass). Expansion of the types of containers would help with corrugated, marine plastic, and glass.

Ms. Lifset outlined several differences of EPR programs. The fee schedules vary greatly within jurisdictions which produce different results (examples of Quebec and Spain on slide 10). Whether they produce the results you want is another question but must keep in mind the apples to oranges comparison. Another interesting development primarily in the EU is the changing fee structures to modulated or differentiated fees which add an increase or decrease depending on the characteristic of the packaging (see slide 11). The implication is good and bad. The good news is that if there is a particular problem that needs addressed, these can be targeted. The bad news is this creates a whole set of politics on what is in or out of the modulated fees.

B. Question and Answer

- **Mr. Metzner**: Connecticut is looking for strategies to increase by 25% but we aren't starting from zero. It's a lot easier to go from 0% to 25% than it is from 50% to 75%. It becomes incrementally harder to get to rarefied air of packaging recycling. Can Connecticut go from where we are up 25% to be where the elite programs are with voluntary programs or doing what we're doing now only better? Or do we have to do it with EPR?

  Mr. Lifset: I think it's very hard to use the existing system to get to those levels. If you take a deep dive into the numbers around communities discussing being above 60%, you'll find

there's a lot of construction and demolition (C&D) games being played with data. If you want to get to the higher numbers, there needs to be more resources put into it. The question then becomes how do you want to use your resources?

- **Chairman Bell:** When discussing resources and the prioritization of resources, what other policy options would we have for communities to improve the collection infrastructure? Does the policy direct it or does the funding direct it? What policy options do we have to get more money?

  Mr. Lifset: In terms of funding, the most feasible in political terms is EPR. I don't see another way of getting funding into 169 towns in Connecticut in the current fiscal environment. The question is whether you want to spend the money on EPR, not will it do it. If you direct enough money at it and create decent policy, you can up the numbers.

- **Mr. Cassel:** Why is more funding needed? These are valuable materials. Why can't the markets handle this and why do we need to pump money into the system?

  Mr. Lifset: I don't think they are all valuable materials. Some items demand a good market price, others don't. Others have high processing cost. The question is what is the extent of the externality that is being resolved by putting money into making up the difference of the market price and the cost of collecting and sorting?

  Mr. Cassel: You mention some of the externalities. What are some of the reasons why a state would want to do this? If it's more expensive to do and the markets are saying to dispose of it (e.g., waste-to-energy), why would a state want to do this?

  Mr. Lifset: There are carbon benefits to recycling (but not every material). At a past EPR conference in Minnesota, it was noted that, "Recycling and recycling more has carbon benefits". If I had my druthers, we wouldn't set-up these complicated systems. Rather, we'd have a tax on carbon. But lobbyists aren't lining up to tell the Trump Administration to set-up a carbon tax. So we are setting up the next best thing through these more complicated means.

  Marine plastics is going to turn into a complicated issue for waste management. If this is a Packaging Task Force, then the question becomes what packaging contributes to marine/ aquatic debris and how would the policy instruments map onto those specific problems.

  More generally, it's important to pay attention to what we do with collected recyclables. The practical problems are do we have a market to make the program viable. But it's also important to ask are we actually substituting for virgin material because that's where the environmental "bang for the buck" is. If we're putting collected materials in an obscure place and it's not displacing virgin materials, then the environmental rationale is a lot weaker.

- **Mr. Perkins:** I look at the charge of the committee which says we focus on "reducing consumer packaging", not recycling. Reducing consumer packaging is the primary charge of the committee. Where is the tipping point where EPR or a bottle bill is enough of a fee that actually reduces consumer packaging?

Mr. Lifset: Let's start with the second one. Bottle deposits do not reduce packaging. They improve the collection of packaging. Their greatest relevance in this discussion is marine litter and the problem of glass. It is not a reduction strategy.

Does EPR reduce packaging? In the 1990s when the German packaging ordinance was enacted and the Green Dot was put into place, the two things I remember from that time were:

- Dramatic reduction in secondary packaging (e.g., box around a tube of toothpaste). Suddenly, the cardboard box disappeared.
- Net reduction in packaging generation although numbers complicated because of time period in Germany (East and West Germany merged).

I have not seen a good study on if EPR generates a reduction of packaging. It definitely steers it and, depending on fee structures, goods producers will change packages if the costs are high enough.

Mr. Perkins: Where is the tipping point?

Mr. Lifset: You will have an excellent opportunity at the next meeting to ask Joachim Quoden who knows packaging and EPR better than anyone. You can also discuss with Allen Langdon in British Columbia although their program is too early to have good data.

(Chairman Bell noted that Joachim Quoden is not currently scheduled for the next Task Force meeting.)

- **Mr. Spinella:** We have 17% of mandated recyclables in our disposed MSW according to the Connecticut waste study. My understanding is that printed paper and packaging (aka what goes in the blue bin) is another word for the mandated recyclables. Do you agree that one thing we should look at is how to reduce the 17% of mandated recyclables in our MSW?

  Mr. Lifset: Yes, but it goes beyond that because we're at a status quo that may degrade because of the other factors I mentioned. Doing nothing could increase that 17%.

  Mr. Spinella: If we do nothing, it could also go down. One of the things we need to do it determine the 17.2% is to look at what Connecticut is doing. Do we have the appropriate statutes, convenient collection infrastructure, and do we have convenient and available processing facilities? The Solid Waste Management Plan stated that Connecticut has in place a sufficient processing infrastructure to handle far more than what's being recycled. It also stated that all but a few of the 169 municipalities have available wide-spread, single-stream curbside collection. If we have the collection infrastructure, the processing infrastructure, and the laws, why do we have 17.2% in the disposed MSW?

  Mr. Lifset: Wouldn't agree with the framing of the problem. The problem isn't only the percentage of mandated recyclables in the residential waste stream. I said the environmental value of recycling is the displacement of virgin materials; it's not about saving landfill space. The number isn't 17%; it's how much comes out the output side of the MRF and is the quality appropriate to displace virgin material. If we have 46% breakage of glass and less than 40% of collected glass is recycled, then it's not about the 17%.

Mr. Spinella: Most in this room agree glass is a problem. Frankly, the MRFs don't want glass in the mandated recyclables (recyclability, contamination issues). The municipalities and state of Connecticut wants the glass in mandated recyclables to get to 60%. The 60% was chosen without considering light-weighting and volume of plastic used today. We saddled ourselves with a 60% number. We're told we have to keep glass in the mandated recyclables to get to 60%. And then we're told as a Task Force to solve the problem.

Mr. Lifset: Yes, glass is a problem. Is the 60% number appropriate? I don't know. I haven't taken a deep dive. The only place I've recently seen that's grappled with that is the state of Oregon which looked at recycling in terms of the greenhouse gas reduction benefits of various waste streams. Unfortunately, the ability of states to do these types of analyses is diminishing because the Trump Administration is defunding the staff that maintains the analytical tools used for that. It's hard to debate the 60% without those tools.

There are still other things going on. How do we cope with flexible packaging? We know FPA is working hard on this. Do we know whether a deposit or EPR on beverage pouches will work? Start by asking Joachim Quoden whether it works.

Do we have the right laws in place? You could go to any jurisdiction in the country and ask that about any issue. The question is do we have significant problems such that it's worth investing a lot of time to revise the laws? I can't answer that.

- **Mr. Perkins:** Is packaging really the biggest problem? We talked about food waste – is that a bigger issue? Are we focusing on the right thing to get the biggest return? Can we get more from packaging? What's the biggest thing going into the landfill and waste stream?

  Mr. Lifset: I wouldn't couch it in terms of what's going to the landfill. I'd couch it in terms of what's displacing the most virgin materials. Food waste is different. If you put food waste in a landfill, depending on how the landfill is designed, you'll generate methane. If you put into a waste-to-energy facility and depending on wetness, you'll generate more nitrogen oxide (NOx) emissions.

  The question about the law of diminishing returns is right. We have to ask what the priorities are. But then we ask the associated question of, "are these goals fungible"? If we don't spend money on packaging, is that money going to go to combat food waste? Or are these in politically separate bins?

  When we teach student economics, we talk about looking at the marginal cost curve. The marginal costs go up the more you do. In political terms, if we say A gets a bigger bang for the buck than B, can we move the money from A to B? The politicians have to answer that.

- **Mr. Cassel:** Are you familiar with U.S. rates versus Canadian or European rate to compare?

  Mr. Lifset: Not in quantitative terms. Some of us saw the AMERIPEN additional comments. It's important to realize when you compare U.S. and European numbers, you have to pay attention to what's in the European Union. There are 25 or 28 member countries. If you take all the recycling numbers and average across member states, you'll get a different number versus looking at the more long-standing, developed states.

In both the U.S. and in Europe but even more in the U.S., our waste numbers are dreadful. The numbers are incommensurate across states. No one has ever validated the data behind the national figures since they've been coming out since the late-60s/70s. We're still flying in the dark.

VI. NEXT STEPS

(Note: The initial portion of the discussion on the meeting audio recording was cut off. Paraphrasing of the discussion based on written notes taken during the meeting.)

Chairman Bell discussed the next groups to testify. The first will be those focused communities with implemented EPR programs. It was suggested that communities with successful recycling programs without EPR be allowed to present as well. The second group will be the haulers and processors of recyclable material including MRFs.

The group discussed the final report. The goal is for a final report by mid-October although concern was expressed on that ambitious timeline.

(Note: Audio recording picks back up.)

Mr. Metzner suggested to focus on the seven parts of the Special Act that created the Task Force. He outlined the goal in the Special Act to increase packaging recycling by 25%. For the report and once all input is received, it was suggested head the report based on the seven sections to address as a group or break into individual subgroups for specifics.

Mr. Flower volunteered to draft an outline in line with the Special Act. We will address/define the problems and then get into the specific recommendations based on feedback from the groups presenting to the Task Force. An outline will be drafted and then areas assigned to specific individuals.

VII. PUBLIC COMMENT

Mr. Flower invited public comments.

- Eric Brown, Connecticut Business and Industry Association
  Mr. Brown represents the business community in Connecticut. He outlined that several statistics were discussed. Ms. Harrison discussed that they found that 60% of recyclable material was going to the trash. Later, we heard that only 17% of the mandated recyclables in Connecticut were going into the trash. Then there was a third statistic of a 35% recycling rate. It sounds like, at least with mandated recyclables, we're doing quite well.

  Ms. Harrison also mentioned in her presentation that a goal was to make recycling as easy as throwing things in the trash. Mr. Brown stated he understood that Connecticut is in good shape due to laws requiring private haulers to provide curbside programs. If certain materials are currently required to go to a retailer versus curbside, we need to think about how to change that.

  Mr. Brown outlined that the charge of the Task Force is to reduce the amount of consumer packaging going into the trash. It isn't saying to reduce the amount of consumer packaging; it's to reduce the amount going to the trash. This opens up the importance of public education versus creating a complex system for industry.

Mr. Brown also highlighted Mr. Lifset's focus on the environmental goal of recycling which is to replace the need for virgin material. A lot of what is collected goes to replacing virgin materials already.

Mr. Brown closed noting that, to the extent we focus on consumer packaging, it's important to note how much is recyclable and how much is going into recycling system. There might be simple recommendations for making big improvements.

VIII. 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.

The next Task Force meeting is scheduled for August 30, 2017, from 10am to 12:30pm at CT DEEP offices.