Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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

October 2, 2017

Special Act 16-6
There is established a task force to study methods for reducing, through source reduction, reuse and recycling, consumer packaging that generates solid waste in the state. The task force shall analyze and identify: (1) Strategies for improving the efficacy of state, municipal and local solid waste recycling infrastructures and systems; (2) consumer education and awareness efforts aimed at increasing awareness of consumer packaging as solid waste and reuse and recycling solutions for such packaging; (3) existing methods employed in the consumer packaging and recycling industry to reduce and minimize the amount, weight and volume of consumer packaging that generates solid waste; (4) incentives for consumer packaging producers to reduce the amount of such packaging that they create; (5) opportunities to cost-effectively increase the proportion of biodegradable, postconsumer recycled and recyclable materials used in the manufacture of consumer packaging; (6) strategies for achieving a reduction of not less than twenty-five per cent of consumer packaging in the state's solid waste stream on and after January 1, 2024, and decreasing municipal costs associated with managing such waste stream through the implementation of: (A) Alternative low-cost methods of managing and reducing consumer packaging in an environmentally sustainable manner that additionally yields economic benefits through the creation of job opportunities, or (B) an extended producer responsibility program for consumer packaging; (7) methodologies for measuring and verifying the reduction described in subdivision (6) of this subsection; and (8) incremental performance targets to assure achievement of the reduction described in subdivision (6) of this subsection.

Introduction
By statute, while municipalities have responsibility for implementing recycling programs, the Department of Energy and Environmental Protection (DEEP) is tasked with regulating facilities, setting statewide goals and policies, and developing a state-wide solid waste management plan. In 2016, as directed by the legislature in Public Act 14-94, DEEP issued a revised state-wide solid waste management plan, the *Comprehensive Materials Management Strategy* (CMMS).

The CMMS highlighted producer responsibility as a key strategy for meeting the state's goal of diverting 60 percent of material from disposal by 2024 through source reduction, recycling, and new technologies.

As a task force member, DEEP welcomes the opportunity to offer the following specific suggestions to realize the goals of the Special Act.

(1) **Strategies for improving the efficacy of state, municipal and local solid waste recycling efforts**.
Use Extended Producer Responsibility (EPR) to Manage the Cost of Improving Recycling

State statute requires that every municipality make provisions for the separation, collection processing and marketing of items generated within its borders (CGS Sec 22a-220(f)). Some municipalities meet this requirement by collecting curbside recyclables through municipally run collections or a municipal contract with a private hauler. Others register private haulers to operate within their borders and enter into private subscription agreements with residents. Many municipalities also maintain a transfer station to which residents can bring recyclables including packaging. The task force heard from municipal officials about their concerns about the cost of mandatory recycling. The cost of collection programs can burden municipal governments. In addition, municipalities that market recovered materials from transfer stations have been impacted by declining commodity values in recent years. Municipalities with contracted collection are also impacted by this decline.

The panel heard from municipalities that they lack the staff and funding to take on more enforcement, education and administrative costs. Industry representatives from the packaging industry and waste haulers called for municipalities to do more education and enforcement. While these measures are likely to improve recycling rates, the impact of additional outreach and compliance monitoring is commensurate with the resources brought to bear – and current budgetary conditions challenge the ability of cities and towns to invest additional public dollars in recycling.

DEEP believes the best way to improve the efficacy of state and municipal recycling efforts is through implementation of an extended producer responsibility (EPR) program for packaging. The task force heard presentations from Allen Langdon, Director of Recycle BC, which administers an EPR program in the Canadian province of British Columbia, Joachim Quoden from the Extended Producer Responsibility Alliance (EXPRA), which administers a packaging EPR program in Europe and beyond, and John Coyne, of Unilever Canada and Board Chair of the Canadian Stewardship Services Alliance (CSSA) describing their EPR programs for packaging. These programs have set a standard for successful recycling and offer Connecticut a blue print for similar success.

The track record of these programs support a finding by this task force that EPR is demonstrated to lighten the cost burden on municipalities while improving environmental outcomes. One way or another, making improvement to recycling programs requires new investment in collection and processing infrastructure, as well as public outreach. These costs should not be borne by municipal or state budgets alone.

Use EPR to Improve Recycling Outcomes

There was much debate at the task force about what the data tells us about the efficacy of EPR. While DEEP acknowledges the challenge in comparing outcomes between various programs where measures differ, we are satisfied that there was sufficient evidence presented to the task force to conclude that EPR programs have achieved far greater rates of recycling than Connecticut's current system.

The task force heard from Mr. Langdon of Recycle BC that in 2016, the province of British Columbia recovered 78% of the packaging material generated and recycled 72%. The cost for the program is $40 Canadian per household ($33 USD) which is comparable to the costs for Connecticut's curbside

program.[1] The British Columbia program has a much higher recycling recovery rate (72% in British Columbia versus 44% in Connecticut), plus it includes the cost for administration, research and development, and public education, and includes a wider scope of materials. The British Columbia program also includes multifamily units and has logistical challenges associated with a sparsely populated geography. Mr. Langdon estimated the recycling recovery rate to be 55% prior to the implementation of the EPR program.

Table 1 – Comparison of EPR recycling programs to Connecticut

Program	**Type**	**Packaging Recycling Rate**	**Annual Cost**	**Includes Multifamily?**
British Columbia - Recycle BC	Full EPR	72%	$276 per ton or $33 per household	Yes
Belgium – Fost Plus	Full EPR	87%	$206 per ton[2]	Yes
Germany	Full EPR	71%	unknown	Yes
Connecticut	No EPR - Municipal taxes or subscription	45%	$120-$250 per ton[3] or <$40 per household	No

The task force also heard from Mr. Quoden of EXPRA who reported similar success in recycling in Europe using an EPR system. EPR for packaging was first implemented in Europe in 1992 in Germany and has grown to include 25 members[4]. In 2014, 17 European members achieved 60% diversion of packaging or higher through their EPR program[5]. Mr. Quoden stated that, "EPR allows a constant and consistent source of funding that is not totally reliant on government funding." This consistent source of funding is a key for successful curbside recycling.

The packaging task force heard a taped presentation from John Coyne of Unilever Canada, who described the role of EPR in lessening greenhouse gases, creating economic opportunity, promoting the circular economy, and addressing the problem of plastics in our oceans. He proclaimed that EPR is a competitive market solution for materials management because it allows the manufacturers to use market forces to create a more successful outcome.

Reid Lifset, professor at the Yale University School of Forestry and Environmental Studies, presented to the task force in July, 2017 and in response to a question, indicated he did not think it possible to achieve ambitious recycling goals without EPR for packaging.

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[1] September 13 task force meeting, Mr. Changaris indicated the per household recycling cost as less than $40 per household per year.
[2] Fost Plus website. Converted to USD from Euros and to English tons from metric tonnes
[3] Per ton cost based on a sample of Connecticut towns
[4] Joachim Quoden presentation to task force, Aug. 30, 2017
[5] Joachim Quoden presentation to task force, Aug 30, 2017

Other Strategies to Improve Recycling Can Complement EPR in a Comprehensive Approach

Task Force members and presenters have identified a number of other strategies to reduce packaging waste and increase recycling other than EPR. These include light weighting, Pay-As-You-Throw (PAYT), increased public education, and greater enforcement.

In the CMMS, DEEP identified the same priorities. Over the past few years, DEEP has made great strides in implementing these strategies, including providing grants to municipalities to implement PAYT, establishing the RecycleCT Foundation to create a statewide educational campaign to promote recycling, and developing a new program for enforcement of recycling requirements for businesses and multifamily housing units (Recycling Enforcement Initiative). Those who advocate that the state or municipalities do more in these areas before pursuing an EPR solution are merely advocating "more of the same." We believe that EPR is needed as a part of a comprehensive strategy to decrease waste and increase recycling, and all effective approaches, including EPR, should be pursued concurrently.

(2) Consumer education and awareness efforts aimed at increasing awareness of consumer packaging as solid waste and reuse and recycling solutions for such packaging.

We agree that education is a cornerstone of an effective recycling program and would support a task force finding to that effect. We strongly recommend that this task force identify where additional resources for education would come from. An EPR program for packaging would require the manufacturers to administer a comprehensive packaging recycling program. Accepting responsibility for running a program includes promoting that program. The Recycle BC program included a line item in their budget for $1.5 million for education. EPR provides a stable source of funding for education and promotion that is not derived from taxes.

(3) Existing methods employed in the consumer packaging and recycling industry to reduce and minimize the amount, weight and volume of consumer packaging that generates solid waste.

DEEP supports and embraces a holistic approach that creates incentives to reduce packaging waste, supports the reuse of packaging and increases the collection of packaging materials to be sold as commodities for recycling purposes. The packaging industry presented information to the task force showing that they have made gains in light-weighting packaging by switching to plastics and other strategies. Ameripen and GMA also pointed out that wrapping of produce helps to extend the shelf life and reduce food waste. DEEP encourages manufacturers to continue to consider designing for the environment when making packaging choices.

In an EPR program, manufacturers are incentivized to consider the end of life management of the packaging material they use. Moving to a lighter weight material, such as from glass to film, has advantages in source reduction, but many of those benefits can be lost if the package is not recyclable. EPR programs do not seek to ban materials but instead institute higher costs to encourage manufacturers to develop a recycling program for their packaging or to use a more easily recyclable material.

(4) Incentives for consumer packaging producers to reduce the amount of such packaging that they create.

EPR programs provide a market-based incentive for manufacturers to reduce the amount of packaging they use. In the Recycle BC program, for example, a cereal manufacturer who uses paperboard and a plastic film, will pay into the program for each pound of each material placed into commerce. Manufacturers will pay less per pound for materials that have a higher recycling value and will pay more per pound for materials that have a lower recycling value. In order to reduce this cost, manufacturers will consider the weight and recyclability of the packaging material they choose. The program does not seek to mandate which types of materials manufacturers use but incentivizes manufactures to create less packaging and to choose materials that are more easily recycled.

(5) Opportunities to cost-effectively increase the proportion of biodegradable, postconsumer recycled and recyclable materials used in the manufacture of consumer packaging.

John Coyne of Unilever and the Canadian Stewardship Services Alliance pointed out in his presentation that EPR programs are part of a larger strategy to promote the circular economy which minimizes waste by incorporating recycled material into the next generation of packaging. Recycling ensures a steady supply of the material needed to create the packaging needed by the manufacturers. This creates a closed loop system which is key to the circular economy. EPR programs, which have achieved higher recycling rates than non-EPR programs, create economies of scale because they involve many manufacturers and larger quantities of recovered material. This creates a steady supply of glass, metal, and plastic to be used in the next generation of packaging.

(6) Strategies for achieving a reduction of not less than twenty-five per cent of consumer packaging in the state's solid waste stream on and after January 1, 2024, and decreasing municipal costs associated with managing such waste stream through the implementation of: (A) Alternative low-cost methods of managing and reducing consumer packaging in an environmentally sustainable manner that additionally yields economic benefits through the creation of job opportunities, or (B) an extended producer responsibility program for consumer packaging.

DEEP believes that while there are several strategies for increasing recycling, EPR is the one strategy with a demonstrable record of both achieving maximum recycling rates and decreasing municipal costs. As mentioned above, the task force heard from Allen Langdon and Joachim Quoden, who administer EPR programs in British Columbia and Europe respectively. Both of these programs provide a stable source of funding to promote and enhance recycling while providing a financial incentive to municipalities to participate in the program. Both have achieved high recycling recovery rates for packaging, averaging about 60% in Europe, 72% in British Columbia and 80% in Belgium, which is significantly higher than Connecticut at about 44%. Recycle BC's program operates at $33USD per household, less than the $40 - $50 per household in Connecticut. If an EPR approach were used to help cover the municipal cost of recycling collection, it could save $1 million or more to our largest cities.

With increased recycling comes increased jobs. According to EPA, recycling 10,000 tons of materials would create 36 jobs. The EPR programs in Connecticut for mattresses and electronics have both created jobs. The EPR program in Belgium creates jobs for an estimated 2500 people.[6]

DEEP supports municipalities voluntarily implementing PAYT as a supplemental strategy for increasing recycling rates. Many jurisdictions that have implemented EPR also employ PAYT to increase the quantity and quality of recyclables. Joachim Quoden supports PAYT to benefit an EPR program by educating residents on the costs for solid waste and the benefits of recycling.

Connecticut must also confront the recycling challenges of glass in the single stream. Glass in single stream recycling programs is seen by many processors as a contaminant due to the high incidence of breakage. Broken glass is difficult to separate without contamination and therefore recycle into new glass. While EPR programs can accommodate single stream recycling, programs that separate glass achieve higher recycling rates, lower contamination, and higher financial incentives for municipalities. The City of Abbottsford, British Columbia (population 140,000) receives an annual incentive payment of $1million ($800,000 USD) from Recycle BC to participate in their EPR program. A condition of participation was that city residents needed to separate glass from other recyclables. The City indicated that although there were some complaints and confusion at the onset, the residents have adjusted and there were no regrets from instituting the changes. DEEP believes an EPR program would offer municipalities that have addressed glass contamination a higher incentive to join thus giving the municipality control over that decision.

(7) Methodologies for measuring and verifying the reduction described in subdivision (6) of this subsection.

Waste characterization studies have given us the most comprehensive data on the nature of our solid waste. Specific to packaging, having Waste-to-Energy facilities conduct a packaging specific characterization analysis would give us the baseline data we need to measure the impact of the measures taken to reduce packaging. These waste characterizations would provide a tonnage of packaging in the waste stream in the baseline year of 2018. Another similar waste characterization in 2024 would provide the data to determine if the measures implemented resulted in a 25% reduction in packaging in the waste stream.

(8) Incremental performance targets to assure achievement of the reduction described in subdivision (6) of this subsection.

A packaging waste characterization study conducted in 2021, midway through the evaluation cycle, could serve as an incremental measure of the impact of the steps taken to reduce packaging waste. The characterization could be financed by the Waste-to-Energy facilities as described above.

[6] Fost Plus website