

April 8, 2016

Commissioner Rob Klee  
Connecticut Department of Energy & Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

Re. American Chemistry Council Comments on Connecticut's Draft Comprehensive Materials Management Strategy

Dear Commissioner Klee,

The American Chemistry Council's Plastics Division<sup>1</sup> (ACC) is pleased to submit comments on "Connecticut's Draft Comprehensive Materials Management Strategy: 2016 Connecticut Solid Waste Management Plan." ACC's Plastics Division represents leading manufacturers of plastic resins and is a leader in promoting innovative plastics recycling<sup>2</sup> and energy recovery programs,<sup>3</sup> including educational and outreach programs to improve plastics recycling and recovery nationwide. ACC has a strong interest in sustainable materials management, plastics sustainability and recovery. We commend Connecticut for seeking to improve the performance of its recycling system and to develop new waste conversion technologies. However, we are concerned about the promotion of mandatory extended producer responsibility (EPR). Reliance on EPR can lead to an overemphasis on recycling to the exclusion of source reduction, energy recovery and the implementation of a true "sustainable materials management" system that uses life cycle analysis to better understand environmental impacts. We welcome the opportunity to work with Connecticut to grow plastics recycling and in that regard we encourage the state to:

- 1) Consider adopting a holistic sustainable materials management approach that incorporates life cycle analysis and accounts for source reduction and energy recovery along with recycling;
- 2) Fully enforce its existing mandatory recycling provisions before implementing new schemes;
- 3) Maximize opportunities to increase the quality and quantity of recycled material through programs like the ACC's Wrap Recycling Action Program (WRAP), The Plastics

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<sup>1</sup> The Plastics Division of the American Chemistry Council (ACC) represents leading manufacturers of plastic resins. We may not think about them often, but versatile plastics inspire countless innovations that help make life better, healthier and safer every day. Members of the ACC Plastics Division are: BASF Corporation, Braskem America, Inc., Chevron Phillips Chemical Company LP, Covestro, The Dow Chemical Company, DuPont, ExxonMobil Chemical Company, LANXESS Corporation, LyondellBasell Industries N.V., NOVA, SABIC, Solvay America, Inc., Total Petrochemicals & Refining USA, Inc., Trinseo, and the Vinyl Institute.

<sup>2</sup> See, for example, Keep America Beautiful's [I Want to be Recycled](#) campaign, [The Recycling Partnership](#), [WRAP program](#)

<sup>3</sup> Plastics Energy Recovery on [ACC.com](#)



Recycling Terms and Tools, The Recycling Partnership and the Grocery Rigid Plastic Recycling Program; and

- 4) Update Connecticut's regulations to encourage the growth of facilities that convert post-use, non-recycled plastics and other materials into valuable fuels and chemical feedstocks, while also recognizing overall "diversion" from landfill.

Connecticut's Department of Energy & Environmental Protection (DEEP) plan contains many ideas that will enable Connecticut to more sustainably manage its post-use resources. Please consider using the recommendations outlined in our detailed comments below as DEEP implements its final strategy. ACC can be a partner in your work to help reduce waste by source reduction, recycling and recovery.

Sincerely,

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## ACC's Detailed Comments on Connecticut's Draft Comprehensive Materials Management Strategy

### **Plastics Contributions to Sustainable Materials Management**

Plastics help us to do more with less in many ways. Because they're durable, lightweight, and versatile, plastics can help reduce waste and consume less energy. Lighter packaging can mean that lighter loads or fewer trucks and railcars are needed to ship the same amount of product, helping to reduce transportation energy, decrease emissions and lower shipping costs.<sup>4</sup>

### **Plastics Recycling Today**

ACC applauds Connecticut's initiative to increase its recycling of valuable commodities and divert more valuable post-use resources from landfill. Plastics' recycling creates economic and environmental value. In fact, the pounds of plastic bottles collected for recycling has increased for at least 25 consecutive years.<sup>5</sup> The *2014 United States National Postconsumer Plastics Bottle Recycling Report* found that the total pounds of plastic bottles collected for recycling in 2014 increased to over 3 billion pounds.<sup>6</sup> The two main types of bottles that are recycled are polyethylene terephthalate (PET) and high density polyethylene (HDPE). PET is often found in water and soda bottles and HDPE is often found in milk jugs and detergent bottles.

ACC also tracks the recycling of plastic wraps, film, and bags. This category of plastics includes commercial shrink wrap, plastic wrapping around consumer products such as paper towels and bathroom tissue, protective packaging such as bubble wrap, and ordinary plastic shopping bags. The *2014 National Postconsumer Plastic Bag & Film Recycling Report* found that 1.17 billion pounds of postconsumer plastic film was recovered for recycling in 2014.<sup>7</sup> This represents a 79% increase since 2005.<sup>8</sup> Film, bags, and wraps can become contaminated when mixed with other materials, so are best not collected curbside. These materials can be collected at 18,000+ locations including most major grocery stores and retailers. In fact, EPA data can be used to show that the polyethylene film recycling rate has gone from 5% in 2003 to 17% in 2013.<sup>9</sup> Several years ago, ACC formed the Flexible Film Recycling Group (FFRG) to work to increase the recycling of polyethylene film. Its goal is to double polyethylene film recycling by 2020.

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<sup>4</sup> Impact of Plastics Packaging on Life Cycle Energy Consumption & Greenhouse Gas Emissions in The United States and Canada. 2014 <http://plastics.americanchemistry.com/Education-Resources/Publications/Impact-of-Plastics-Packaging.pdf>

<sup>5</sup> 2014 United States National Postconsumer Plastics Bottle Recycling Report. <http://plastics.americanchemistry.com/Education-Resources/Publications/2014-National-Post-Consumer-Plastics-Bottle-Recycling-Report.pdf>

<sup>6</sup> Ibid

<sup>7</sup> The 2014 National Postconsumer Plastic Bag & Film Recycling Report <https://plastics.americanchemistry.com/Education-Resources/Publications/2014-National-Postconsumer-Plastic-Bag-Film-Recycling-Report.pdf>

<sup>8</sup> Ibid

<sup>9</sup> Advancing Sustainable Materials Management: Facts and Figures 2013. June 2015. [https://www3.epa.gov/epawaste/nonhaz/municipal/pubs/2013\\_advncng\\_smm\\_rpt.pdf](https://www3.epa.gov/epawaste/nonhaz/municipal/pubs/2013_advncng_smm_rpt.pdf)



Finally, ACC tracks the collection of non-bottle rigid plastics collected for recycling. Non-bottle rigid plastics can be found in many forms such as tubs, containers, lids, cups and clamshells as well as larger “bulky” items such as buckets, crates, toys, and laundry baskets. The *2014 National Postconsumer Non-Bottle Rigid Plastic Recycling Report* found that over 1.28 billion pounds of postconsumer non-bottle rigid plastic was recovered for recycling.<sup>10</sup> Non-bottle rigid plastic recovered has quadrupled since 2007.<sup>11</sup> The emergence of many domestic markets for non-bottle rigid plastics has led to an increasing number of cities and counties collecting these plastics for recycling. The *Plastics Recycling Collection National Reach Study: 2012 Update* found that over 60% the United States population has some form of access to recycle of non-bottle rigid containers.<sup>12</sup> Further, increasingly consistent supply of this material to the marketplace has driven increasing reclamation capacity in the United States.<sup>13</sup>

## Programs to Increase Plastics Recycling

ACC commends Connecticut for focusing on diverting more valuable post-use resources from landfill. DEEP’s strategy lists three specific objectives:

- Improving the performance of municipal recycling systems and increasing compliance with mandatory recycling provisions.
- Developing and improving recycling and waste conversion technologies.
- Implementing a mandatory product stewardship program for packaging and printed paper.

ACC’s programs and activities intersect with the first two objectives. We believe Connecticut could benefit from leveraging ACC’s and our partners’ education, outreach and technical assistance programs. Below are some recommendations on programs that can deliver results for increasing plastics recycling.

### 1) Pursue sustainable materials management as the long term goal.

ACC is pleased that Connecticut recognizes source reduction as an important tool to increasing its diversion rate from landfill. Plastics are an important component to preventing wastes, such as food waste, from materializing. We recommend that the state consider an approach known as “sustainable materials management” that is consistent with the approach the U.S. Environmental Protection Agency (EPA) recently adopted.<sup>14</sup> Sustainable materials management utilizes a holistic approach, such as life cycle analysis, as a tool to evaluate the full range of potential

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<sup>10</sup> 2014 National Postconsumer Non-Bottle Rigid Plastic Recycling Report. <https://plastics.americanchemistry.com/Education-Resources/Publications/2014-National-Report-on-Post-Consumer-Non-Bottle-Rigid-Plastic-Recycling.pdf>

<sup>11</sup> Ibid.

<sup>12</sup> Plastic Recycling Collection National Reach Study: 2012 Update, <http://plastics.americanchemistry.com/Education-Resources/Publications/Plastic-Recycling-Collection-National-Reach-Study-2012-Update.pdf>

<sup>13</sup> 2014 National Postconsumer Non-Bottle Rigid Plastic Recycling Report. <https://plastics.americanchemistry.com/Education-Resources/Publications/2014-National-Report-on-Post-Consumer-Non-Bottle-Rigid-Plastic-Recycling.pdf>

<sup>14</sup> U.S. Environmental Protection Agency Sustainable Materials Management. <http://www.epa.gov/smm>



environmental impacts (e.g., greenhouse gas (GHG) emissions, energy, water, etc.) attributed to material use. ACC's life cycle inventories on plastics packaging,<sup>15</sup> including flexible coffee packaging,<sup>16</sup> tuna packaging,<sup>17</sup> and high density polyethylene (HDPE) milk jugs<sup>18</sup> provide examples of how source reductions from plastics packaging can lead to important environmental benefits even if these packages are not mechanically recycled. Additionally, focusing on just the recycling rate can be counterproductive. For example, composting or anaerobic digestion of organic waste is often counted as recycling. And, because a large portion of organic waste is landfilled, increased diversion of organic material is often viewed as a prime opportunity to increase diversion rates. However, ACC encourages Connecticut to explore the fact that a truly sustainable materials management approach recognizes the critical role that sophisticated packaging plays in preventing food from being wasted in the first place. It also recognizes the greater environmental benefits from preventing food waste compared to the environmental benefits of treating organics after foods have already spoiled.<sup>19</sup>

## **2) Enforce existing laws and regulations and pursue collaborative policy approaches.**

DEEP's draft report indicated that many stakeholders identified enforcement gaps at both the state and local level as a leading challenge. Closing enforcement gaps for existing recycling laws and regulations should be pursued before new regulatory powers are enacted. Connecticut's bottle deposit law also presents an opportunity to support recycling broadly. However, unlike many other states, unclaimed bottle deposit receipts are not specifically earmarked to support local recycling programs or other statewide environmental programs. Instead these funds go directly to Connecticut's general fund and are spent on unrelated programs. Funding was listed by stakeholders as an acute challenge for enforcement activities. ACC recommends that Connecticut look to earmark its unclaimed bottle deposits to recycling activities before seeking out new sources of funding.

Brand owners, retailers, materials manufacturers and recyclers share many of the same objectives as the Connecticut DEEP. Brand owners and retailers want to include more recycled content in their products and packaging. Their customers want to buy packaging and products made with recycled content and brand owners are working to meet that demand. Additionally, materials manufacturers want to improve the sustainability profile of their materials, and recyclers want more quality post-use materials for their operations. To increase recycling, there are many policy opportunities where industry and other stakeholders agree. For example, pay-as-you-throw legislation or other variable pricing schemes that incentivize recycling and disincentivize landfilling is widely supported. Additionally, with density growing in major cities, there needs to

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<sup>15</sup> Impact of Plastics Packaging on Life Cycle Energy Consumption & Greenhouse Gas Emissions in the United States and Canada. <http://plastics.americanchemistry.com/Education-Resources/Publications/Impact-of-Plastics-Packaging.pdf>

<sup>16</sup> LCI for Eight Coffee Packaging Systems. <http://plastics.americanchemistry.com/LCI-Summary-for-8-Coffee-Packaging-Systems>

<sup>17</sup> LCI Summary for Six Tuna Packaging Systems. <http://plastics.americanchemistry.com/LCI-Summary-for-6-Tuna-Packaging-Systems>

<sup>18</sup> LCI Summary for Four Half-Gallon Milk Containers. <http://plastics.americanchemistry.com/LCI-Summary-for-4-Half-Gallon%20Milk%20Containers>

<sup>19</sup> U.S. Environmental Protection Agency. Sustainable Management of Food. <https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy>



be a discussion about requiring new multi-family living complexes as well as the commercial enterprises to provide access to recycling. And finally, state support and direction on technical assistance, common terms, and setting goals are critical. However, it will be difficult to move these initiatives forward while industry and DEEP are engaged in more divisive issues such as EPR.

**3) Maximize opportunities to increase the quality and quantity of recycled material through programs like WRAP, The Plastics Recycling Terms and Tools, The Recycling Partnership, and the Grocery Rigid Plastic Recycling Program,**

ACC is pleased that Connecticut has decided to become a WRAP partner. Increasing the recycling of plastic film, wraps and bags represents a major opportunity to help Connecticut meet its objectives. Clean polyethylene film is a valuable feedstock for manufacturers and most major retailers in the United States collect post-consumer plastic wraps, bags and film at front-of-store locations. These plastics are combined with the large amount of shrink wrap generated behind the store and are backhauled to stores' suppliers. ACC's Flexible Film Recycling Group created its "Wrap Recycling Action Program" (WRAP) to leverage this existing supply chain. The WRAP program promotes brand owner adoption of the Sustainable Packaging Coalition's (SPC) "How to Recycle Label" and can provide DEEP with free resources to educate consumers on the tremendous opportunity to recycle their bag and film plastics at major retailers.

Confusion about what plastics are recyclable in community recycling programs remains a significant barrier to increasing plastics recycling. ACC worked with a large group of plastics stakeholders and leading plastics recycling consultants to develop The Plastics Recycling Terms and Tools.<sup>20</sup> The Plastics Recycling Terms and Tools, along with many other useful resources for community recycling coordinators and recycling professionals, can be found at [RecycleYourPlastics.org](http://RecycleYourPlastics.org).<sup>21</sup> State and municipal recycling coordinators can use this free online tool and its royalty-free images to develop communications materials for their residents. The U.S. EPA recently adopted these standard plastics terms in its state data measurement project and these terms have also been integrated with the Re-Trac Connect™ system used by the state of Connecticut. DEEP's encouragement of community adoption of The Plastics Recycling Terms and Tools could increase collection of post-use plastics and align with its goal of generating more reliable tracking and measurement data.

Communities in Connecticut could benefit from two significant multi-million dollar initiatives led by the private sector. These initiatives are directly investing in communities and recycling systems across the country. For example, The Recycling Partnership (TRP), of which ACC is a funder and board member, has partnered with diverse communities in Ohio, New Jersey, Georgia, South Carolina, Virginia, Alabama, Illinois, Massachusetts, and New Mexico to increase access and the efficacy of their recycling programs. TRP also recently partnered with the Massachusetts Department of Environmental Protection (DEP) to reduce contamination and

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<sup>20</sup> What are the Plastics Recycling Terms and Tools? [https://www.youtube.com/watch?v=zbcVQ2\\_8UU4](https://www.youtube.com/watch?v=zbcVQ2_8UU4)

<sup>21</sup> Plastics Recycling Terms and Tools <https://www.recycleyourplastics.org/recycling-professionals/education/terms-tools/>





drive the collection of more and better material for recycling.<sup>22</sup> TRP currently reaches 1.2 million U.S. households, has supplied more than 165,000 of them with new, large recycling carts resulting in 248,000 tons of additional recyclables collected and 568,000 metric tons of carbon dioxide avoided.<sup>23</sup> These carts replace smaller bins that previously limited the amounts and types of materials that could be collected. Another important organization is the Closed Loop Fund (CLF), which was founded by Walmart and nine major global brands to provide no interest loans to communities and low interest loans to private entities. The Closed Loop Fund recently provided important investment capital for a new plastics recovery facility (PRF) in Baltimore, Maryland.<sup>24</sup> DEEP should explore a direct partnership with TRP and encourage its communities to apply for grants or loans from TRP or CLF.

Lastly, Connecticut should support the Grocery Rigid Plastic Recycling Program.<sup>25</sup> Research has shown that grocery store delis, bakeries, fish markets, and pharmacies use significant quantities of high-value rigid plastics every day. These plastics are often larger, bulkier items that contain things like cake batter, frosting, and fish fillets. Growing the total supply of non-bottle rigid plastics available for reclamation in Connecticut could potentially help establish markets for smaller communities as well. The Association of Plastic Recyclers (APR) and ACC created a website, [www.RecycleGroceryPlastics.org](http://www.RecycleGroceryPlastics.org), with resources, case studies and videos that can help Connecticut grocery stores recycle more of their valuable post-use plastics and increase its diversion rate.<sup>26</sup>

#### **4) Update Connecticut’s regulations to encourage the growth of facilities that convert post-use, non-recycled plastics and other materials into valuable fuels and chemical feedstocks**

Encouraging new recovery technologies should aid Connecticut as it works to increase its total diversion rate from landfill. Unfortunately, many states have yet to recognize the growing range of technologies available to convert post-use resources into useful products and materials. As a result, entrepreneurial manufacturers who seek to convert post-use materials into valuable products often are forced into regulatory schemes for recycling or disposal, when neither is an appropriate fit. Consider pyrolysis, an oxygen free process that can convert post-use, non-recycled plastics into fuels, chemical feedstocks or other petroleum products. Many state waste and recycling regulations were promulgated before these pyrolysis technologies were commercially viable, and as a result these facilities often are miscategorized as waste disposal. However, these facilities receive a feedstock, in this case post-use plastics, and produce a marketable commodity. These are manufacturers, not waste disposal facilities. ACC developed a “Regulatory Treatment of Plastics-to-Fuel Facilities” document to provide permitting guidance

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<sup>22</sup> MassDEP to Collaborate with The Recycling Partnership. <https://www.recyclingtoday.com/article/massdep-the-recycling-partnership-collaborate/>

<sup>23</sup> The Recycling Partnership Annual Report. [http://recyclingpartnership.org/wp-content/uploads/2016/02/RecyclingPartnership\\_AnnualReport2015.pdf](http://recyclingpartnership.org/wp-content/uploads/2016/02/RecyclingPartnership_AnnualReport2015.pdf)

<sup>24</sup> QRS and Canusa Hershman Open Plastics Recycling Facility in Maryland. <https://www.recyclingtoday.com/article/qrs-canusa-hershman-partner-plastics-recycling-plant>

<sup>25</sup> Recycle Grocery Rigid Plastics website. <http://www.recyclegroceryplastics.org/>

<sup>26</sup> Ibid



to state and local regulators.<sup>27</sup> It includes a checklist of the typical federal, state, and local permits that are required to operate these facilities. ACC recently worked with the Governing Institute to help educate policymakers and regulators about the potential of these technologies and how classification as waste disposal is a significant barrier to investment.<sup>28</sup>

Furthermore, Connecticut should promote that it currently landfills only 8% of the post-use waste it produces each year.<sup>29</sup> Connecticut landfills a lower percentage of waste than the other 49 states and District of Columbia. It accomplishes this via a combination of recycling, composting, and traditional waste-to-energy. While source reduction, reuse, recycling and composting are higher on the solid waste hierarchy than energy recovery, it is still an impressive feat. Connecticut should also recognize the considerable environmental benefits of waste-to-energy compared to landfill.<sup>30</sup> The U.S. EPA concludes that per unit of energy produced, municipal solid waste (MSW) combustion facilities generate less GHGs than coal or oil.<sup>31</sup> As Connecticut crafts its strategy for the next 10 years, it should recognize that it needs to integrate all the various tools of materials choice, source reduction, and post-use resource management to achieve its objectives.

ACC appreciates the opportunity to comment on Connecticut's "Draft Comprehensive Materials Management Strategy." DEEP's plan contains many solid ideas that will help Connecticut achieve its goal of more fully utilizing its post-use resources. As DEEP looks to implement its program, please consider using the various resources and recommendations we have outlined. As with the WRAP Partnership, ACC would be pleased to be a partner with DEEP to help reduce waste and then recycle and recover more of Connecticut's post-use plastics.

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<sup>27</sup> Regulatory Treatment of Plastics-to-Fuel Facilities. <http://plastics.americanchemistry.com/Product-Groups-and-Stats/Plastics-to-Fuel/Regulatory-Treatment-of-Plastics-to-Fuel-Facilities.pdf>

<sup>28</sup> Out of the Landfill and Into Your Car: Creating Fuels from Post-use Plastics. 2015  
<http://www.governing.com/papers/Out-of-the-Landfill-Into-Your-Car-Creating-Fuels-From-Post-Use-Plastics-1439.html>

<sup>29</sup> 2014 Energy and Economic Value of Municipal Solid Waste (MSW), Including Non-Recycled Plastics (NRP), Currently Landfilled in the Fifty States. <https://www.americanchemistry.com/Policy/Energy/Energy-Recovery/2014-Update-of-Potential-for-Energy-Recovery-from-Municipal-Solid-Waste-and-Non-Recycled-Plastics.pdf>

<sup>30</sup> Is it Better to Burn or Bury Waste for Clean Electricity Generation?  
<http://pubs.acs.org/doi/pdf/10.1021/es802395e>

<sup>31</sup> U.S. Environmental Protection Agency. <https://www3.epa.gov/wastes/nonhaz/municipal/wte/airem.htm>







## **AF&PA Comments on the 2016 Draft Comprehensive Materials Management Strategy (CMMS)**

**April 13, 2016**

The American Forest & Paper Association (AF&PA) appreciates the opportunity to comment on the 2016 Connecticut Solid Waste Management Plan (Plan) as drafted by the Connecticut Department of Energy and Environmental Protection.

AF&PA supports voluntary paper and paper-based packaging recovery efforts that seek to improve upon the existing recovery and recycling programs in Connecticut and the United States. The voluntary recovery of paper and paper-based packaging is a recycling success story.

AF&PA is the national trade association for the forest products industry, representing pulp, paper, packaging, tissue, and wood products manufacturers, and forest landowners. Our companies make products essential for everyday life from renewable and recyclable resources that sustain the environment. The forest products industry accounts for approximately 4 percent of the total U.S. manufacturing GDP, manufactures approximately \$210 billion in products annually, and employs nearly 900,000 men and women. The industry meets a payroll of approximately \$50 billion annually and is among the top 10 manufacturing sector employers in 47 states.

In Connecticut, the industry employs more than 3,500 individuals, with an annual payroll of over \$290 million. The estimated state and local taxes paid by the forest products industry totals \$37 million annually.

### **AF&PA's Comments on the Plan**

AF&PA has offered and continues to offer background and technical information on the paper and paper recycling industries to the state of Connecticut, including during the Joint Committee of the Environment hearing on March 4<sup>th</sup> on Raised Senate Bill 233, the Act Concerning a Reduction of Consumer-based Packaging Materials. Any program impacting business practices should, at the least, include communication and outreach to stakeholders impacted. We are concerned that this plan suggests a number of foregone conclusions before the stakeholder process has even begun.

While the state does have extended producer responsibility (EPR) programs currently in place for certain products, the consumer interaction with those products and the end of life practices for those products is remarkably different from that of paper and paper-based packaging. Effective recycling options for paper and paper-based packaging are already widely available in Connecticut.

The state has a goal of 60 percent diversion from disposal by 2024. In order to achieve this goal, one of the objectives suggested by the Plan is to require corporations that design, produce, and market products to “share responsibility for stewarding the end of life of those materials in an environmentally sustainable manner.” The Plan would develop new programs “to relieve the financial burden of recycling programs on municipalities and to share responsibility for stewardship with the producers of materials.” With consistently high recovery rates and the paper industry’s ongoing efforts to promote increased recovery, it is unnecessary to impose recovery mandates like EPR on paper and paper-based packaging.

Imposing a state-specific EPR scheme for a globally traded commodity like paper and paper-based packaging is impractical, and would put Connecticut manufacturers and brand owners who do business in the state at a competitive disadvantage. The life path of paper-based packaging is not contained in one state. For instance, a box could be made in one state and then breakfast cereal put into that box in a second state. The cereal is sold in a third state to a consumer living in a fourth state.

Eventually, the practical ceiling for recovery of paper and paper-based packaging for recycling will be achieved without an extended producer responsibility program. Some things cannot be recycled— printed paper used for library books or documents that are archived, paper used in construction applications such as wallboard, and many tissue products. To impose an EPR scheme in hopes of marginal gains could redirect resources toward recovering products that will yield only nominal additional recovered material.

AF&PA believes market forces should guide paper and paper-based packaging recycling and recovery systems in order to promote waste reduction. AF&PA supports the continued development and promotion of proven best practices that will leverage the existing investments in recovery. Widespread adoption of these best practices for recovery (including efficient collection systems, an optimized processing infrastructure, effective education and communications, and appropriate support mechanisms) will all contribute to the recovery success sought. At a minimum, the state should implement recovery best practices before any consideration is given to approaches such as EPR that will disrupt existing recovery programs that Connecticut communities and their private sector partners have already built.

### **Paper is a Leader in Voluntary Recovery and Recycling**

Paper can be a model for other industries in terms of performance and attitude. The paper and paper-based packaging industry has set and met goals established on a voluntary basis, and publicly reported on performance. The industry remains open to working with others in the private and public sectors to maximize paper recovery, which has been part of our thinking as we have nearly doubled our recovery rate in the last 20 years. Governments can help support this market success by avoiding mandates and arbitrary rules that disrupt the current recovery system.

The paper and paper-based packaging industry's commitment to maximizing recovery of its products for recycling is real and longstanding. In 1990, the recovery rate was a little more than one-third (33.5 percent) of the paper consumed in the United States. By 2014, thanks to voluntary industry initiatives and the millions of Americans who recycle at home, work and school every day, the recovery rate has nearly doubled. In 2014, 65.4 percent of all paper consumed in the U.S. was recovered for recycling, and the recovery rate has met or exceeded 63 percent for the past six years. According to the Environmental Protection Agency, more paper (by weight) is recovered for recycling from municipal solid waste streams than glass, plastic, steel and aluminum combined. In 2014, 96 percent of the U.S. population had access to community curbside and/or drop-off paper recycling services. Paper recovery is an environmental success story, saving an average of 3.3 cubic yards of landfill space for each ton of paper recycled.

Paper recovery has fostered a dynamic marketplace that allows recovered fiber to find its highest-value end use in manufacturing new paper and paperboard. That, in turn, helps to encourage more recycling.

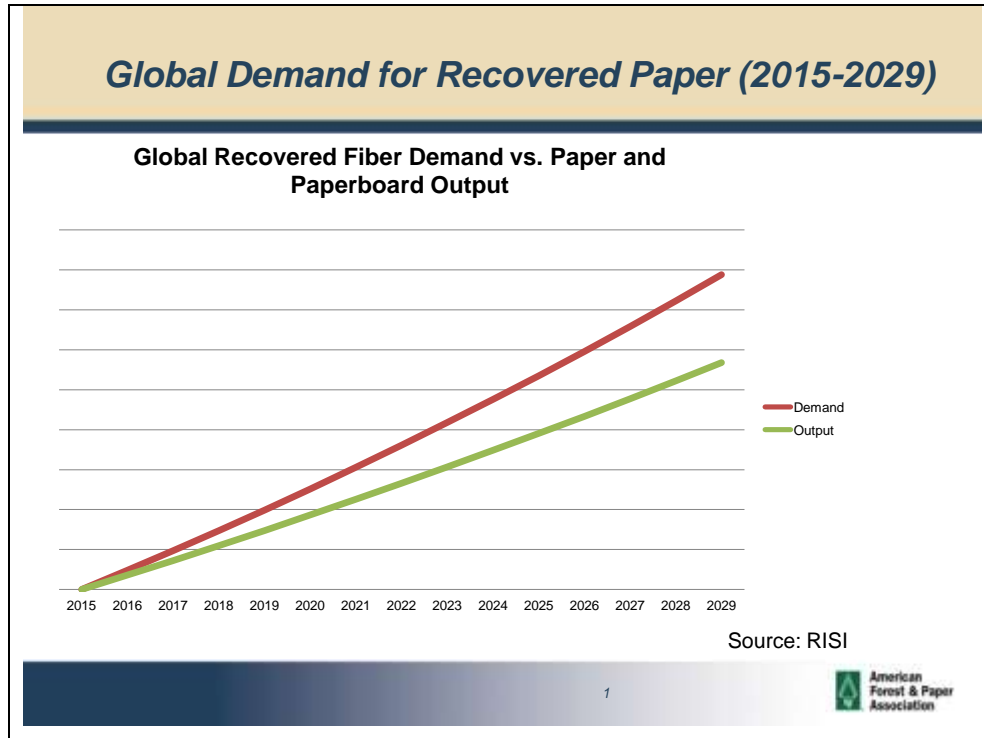
Every Connecticut resident enjoys access to curbside and/or drop-off recycling programs within the existing paper and paper-based packaging collection infrastructure. According to the 2014 AF&PA Community Access Survey conducted by the Louis Berger Group, Inc., 100 percent of Connecticut's residents have access to curbside recycling and 100 percent of the state's residents have access to drop-off recycling.

We are concerned that imposing an EPR scheme will disrupt the markets and voluntary efforts that have delivered measurable and impressive results in recovery of paper-based packaging.

### **Recovered Fiber Markets**

Recovered fiber markets are complex, dynamic and efficient and are not served by regulations or prescriptive approaches to specify the use of recycled fibers, dictate how recyclable paper should be collected or what amount or type of recovered fiber is used in products.

In recent decades, papermakers have looked for ways to use more recovered fiber. In fact, industry analyst Resource Information Systems Inc. (RISI) recently published data projecting the growing gap between recovered paper demand and total paper/paperboard output from 2015-2029.



With the growth rate in the demand for recovered paper exceeding the growth rate for manufactured paper and paperboard, the paper industry will be focused on collecting more mill-quality recovered fiber. Accordingly, artificial incentives or recovery schemes like EPR are not necessary to increase the recovery of paper and paper-based packaging.

### Conclusion

We urge you to consider promoting increased participation by residents in the existing community recycling programs as an alternative to the proposed plan. With 100 percent citizen access to recycling programs within the existing infrastructure, the recovery rate increases stand to be gained by increased participation, not a state-specific EPR program or more industry funded programs. The paper industry continues to meet and exceed voluntary recycling goals for our products. We hope that by sharing this information, the plan drafted to regulate the production and use of paper-based packaging will be based on sound policy to the benefit of the environment and best practices for doing business in the state.

We look forward to continuing our work with the state of Connecticut. Please feel free to contact Abigail Turner, Manager, State Government Affairs, AF&PA at (202) 463-2596 or [abigail\\_turner@afandpa.org](mailto:abigail_turner@afandpa.org) for further information.



The power of packaging in balance.™

March 16, 2016

Attn: Lee Sawyer  
Connecticut Department of Energy & Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

Dear Mr. Sawyer,

The American Institute for Packaging and the Environment (AMERIPEN) is pleased to submit comments on Connecticut's Department of Energy & Environmental Protection's (DEEP) draft "Comprehensive Material Management Strategy: 2016 Connecticut Solid Waste Management Plan."

AMERIPEN – the American Institute for Packaging and the Environment – is a coalition of packaging producers, users and end-of-life materials managers dedicated to improving packaging and the environment. We are the only material neutral packaging association in the United States. Our membership represents the entire packaging supply chain, including materials suppliers, packaging producers, consumer packaged goods companies (CPGs) and end-of-life materials managers. We focus on scientifically developed data to define and support public policy positions that improve the recovery and recycling of packaging materials. Our comments are based on this rigorous research approach and are rooted in our commitment to achieving packaging that benefits society, the economy, and the environment.

AMERIPEN supports DEEP's objectives to reduce waste generation and divert resources from landfill. We appreciate the challenge DEEP is faced with in meeting the legislated goal of 60 percent diversion and we believe DEEP's shift towards sustainable materials management is a proven and effective framework under which to achieve this outcome.

AMERIPEN understands sustainable materials management (SMM) as a framework designed to explore the impact of materials on the environment and across their entire lifecycle. This requires a shift from focusing on 'end-of-pipe' waste management to looking 'upstream' and more comprehensively at how materials can be more sustainably managed. SMM encourages the consideration of embedded energy and economic value of materials, as well as minimizing the generation of greenhouse gases and other pollutants. Informed by lifecycle impacts, SMM promotes the idea that after initial use a material should be recovered for its next highest and best use. With this understanding, AMERIPEN requests DEEP consider the following recommendations in its final report:

**1. The DEEP Waste Management plan must move beyond discard management should it wish to adopt a comprehensive materials management approach.**

DEEP notes the strategies outlined within the “Comprehensive Materials Management Strategy” (CMMS) are focused on meeting Governor Malloy’s goal to achieve 60 percent diversion of solid waste from disposal by 2024. In addressing this goal, DEEP notes, the CMMS strategy has three objectives:

- i. Connecticut must improve the performance of municipal recycling systems and increase compliance with mandatory recycling provisions
- ii. Connecticut must develop and improve recycling and waste conversion technologies
- iii. Corporations that design, produce and market products must share responsibility for stewarding those materials in an environmentally sustainable manner.

While we agree on an overarching level with these objectives, we could not help but be struck in noting that all three objectives are tied to recycling and recovery methods. None of the objectives directly support a movement up the waste hierarchy towards source reduction (a goal clearly stated within the report), nor do they support the SMM concept of evaluating lifecycle impacts to inform next highest and best use waste material management. Two State peers we believe have developed promising approaches in their adoption of SMM to their waste management frameworks include Oregon and Minnesota. We would encourage DEEP to evaluate their frameworks and objectives as they seek to finalize their plan<sup>1</sup>.

**2. Consider and identify goals for all levels of the waste hierarchy and tie incentives to these goals.**

DEEP notes that current recovery and waste metrics are tied to tonnage volumes and that this permits for the best opportunity to benchmark against peer states. While we recognize tonnage is a common approach by the states, we note there is increasing recognition that this approach fails to account for shifts in the packaging stream—including source reduction efforts. Either does this approach help us better understand sustainable consumption patterns or recovery and reuse approaches. We encourage DEEP to develop general metrics which would give greater insight into recovery, reuse and the ability to decouple waste from economic growth. We would also encourage DEEP to identify goals for each level of the hierarchy so that the Department can accurately measure and track their advancement towards more sustainable

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<sup>1</sup> Minnesota Pollution Control Action’s “2015 Solid Waste Report” & Oregon’s Department of Environmental Quality’s “Materials Management in Oregon: 2050 Vision and Framework for Action”



materials management<sup>2</sup>. Greater insight into how DEEP plans to measure source reduction and reuse will help inform better practice.

AMERIPEN will be launching a working group in June 2016 to explore new metrics for recovery which could help DEEP with this process; we would encourage you to consider joining us in this effort.

Additionally, as DEEP sets goals for advancement up the hierarchy, we believe the Department needs to better define the incentives and actions to achieve this. Although the plan recognizes that more focus on source reduction will help drive overall waste reduction, we do not see any comprehensive actions outlined which would support this.

Financially, there is little offered in terms of incentivizing desired behavior and discouraging undesired. For example, in a previous DEEP report<sup>3</sup> it is noted that the state could play a strong role in supporting pay-as-you-throw (PAYT) policies. Tying economic incentives to disposal supports recycling and reuse strategies—moving consumers' behavior further up the waste management hierarchy<sup>4</sup>. Additionally, the plan suggests that material producers can be encouraged to invest in optimization as a result of implementing producer responsibility programs, yet research into product stewardship has demonstrated that the practice of charging producers a fee acts, instead, as an economic disincentive to material optimization<sup>5</sup>. We encourage DEEP to examine and include a full range of economic incentives which could be tied to shifting focus up the hierarchy.<sup>6</sup>

Considering that organic waste is the largest percentage of material waste within the state, we encourage DEEP to recognize the significant role packaging can play in reducing food waste. We

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<sup>2</sup> We encourage DEEP to review Minnesota's recently released "2015 Solid Waste Report" <https://www.pca.state.mn.us/sites/default/files/lrw-sw-1sy15.pdf> to explore how they plan to address metrics. As well as, Oregon's: "Materials Management in Oregon: 2050 Vision and Framework for Action" <http://www.deq.state.or.us/lq/pubs/docs/sw/2050vision/MaterialsManagementinOregon.pdf> for details on their reporting shifts.

<sup>3</sup> Municipal Solid Waste Management Services in Connecticut (2010). [https://www.cga.ct.gov/2009/pridata/Studies/PDF/MSW\\_Services\\_Final\\_Report.pdf](https://www.cga.ct.gov/2009/pridata/Studies/PDF/MSW_Services_Final_Report.pdf)

<sup>4</sup> Waste Management stats demonstrate a 20-40% increase in the collection of recyclables after the implementation of a PAYT program per: Robinson, Susan, Presentation to AMERIPEN 2013 "Recycling Best Practices: Results of 2013 SERA Study for Waste Management".

<sup>5</sup> Sachs, Noah, "Planning the Funeral at the Birth: Extended Producer Responsibility in the European Union and the United States". Harvard Environmental Law Review Vol. 30 (2006). [http://www.law.harvard.edu/students/orgs/elr/vol30\\_1/sachs.elreuroexperiment.pdf](http://www.law.harvard.edu/students/orgs/elr/vol30_1/sachs.elreuroexperiment.pdf)

<sup>6</sup> We encourage DEEP to review Minnesota's "2015 Solid Waste Report" <https://www.pca.state.mn.us/sites/default/files/lrw-sw-1sy15.pdf> to explore how they plan to address this. We also recommend a review of AMERIPEN's paper: "Analysis of Strategies and Financial Platforms to Increase the Recovery of Used Packaging". August 2013. [http://www.ameripen.org/files/AMERIPEN\\_Recovery\\_White\\_Paper\\_Final\\_August\\_27-2013.pdf](http://www.ameripen.org/files/AMERIPEN_Recovery_White_Paper_Final_August_27-2013.pdf)

note that the manufacturing and transportation of food has a more significant environmental impact than its discard. From an SMM perspective, addressing food waste at its source rather than emphasizing waste collection will result in greater environmental impacts. Packaging can offer significant value in reducing food waste. For example, in the developed world, the bulk of food waste occurs primarily at the point of consumption. Thus, packaging helps reduce food waste in the United States by enhancing freshness, portion control, and safety. Thus, we caution that a singular focus on packaging reduction and minimization may inadvertently penalize innovations and opportunities to reduce food waste—a much greater source of total tonnage and GHG emissions<sup>7</sup>.

### **3. Research and explore best use for materials and understand where greatest opportunity for impact may lie.**

A key understanding of a sustainable materials management framework is directing materials at the end of their life towards their highest and best use. In some cases this may mean that not all material is destined for recovery. DEEP takes a comprehensive approach to waste management, and we appreciate the State's emphasis on encouraging new technologies for material recovery, but we also note that the Department maintains a steadfast commitment to recovering existing curbside materials. Significant research is currently being undertaken by State peers<sup>8</sup>, the USEPA and private companies<sup>9</sup> to evaluate best use and to ascertain if broad-scope curbside collection is still appropriate, or if the system may be better served by redirecting specific materials towards other end-of-life options.

AMERIPEN further notes, that the state identified a need for product stewardship, and references a product stewardship priority list generated by an earlier working group,<sup>10</sup> but DEEP has not provided information on how these priorities were evaluated, or how they relate to the SMM focus on highest and best use of materials. We encourage DEEP to provide comprehensive and transparent documentation towards demonstrating the how, why, and lifecycle analysis of any future product stewardship plans.

Lastly, with a focus on a material's highest and best use, packaging needs to be viewed as individual materials not as a collective whole. As noted within the DEEP report, glass has

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<sup>7</sup> Plastics Packaging and the War on Food Waste. <https://www.plasticsmakeitpossible.com/plastics-at-home/food/prep-storage/plastic-packaging-and-the-war-on-food-waste>.

<sup>8</sup> Reclay StewardEdge & Cascadia Consulting. "Oregon Plastics Recovery Assessment" 2015. <http://www.deq.state.or.us/lq/sw/docs/ORplasticRecovery.pdf>

<sup>9</sup> See Waste Management's "Project Spectrum" (available for webinar review upon request).

<sup>10</sup> Connecticut, Department of Energy and the Environment, "Final Report of the Governor's Modernizing Recycling Working Group". [http://www.ct.gov/deep/lib/deep/waste\\_management\\_and\\_disposal/solid\\_waste/transforming\\_matls\\_mgmt/gov\\_recyclin\\_g\\_work\\_group/report\\_dec\\_27\\_2012.pdf](http://www.ct.gov/deep/lib/deep/waste_management_and_disposal/solid_waste/transforming_matls_mgmt/gov_recyclin_g_work_group/report_dec_27_2012.pdf)

different environmental and economic impacts and opportunities than plastics or paper. The recovery value and environmental impact of each of these materials will differ as will their upstream impacts. Identifying materials based upon their lifecycle impacts, and not commercial use, will provide greater insight into environmental opportunities and challenges.

#### **4. Further evaluate the impact of producer responsibility programs on stated goals.**

DEEP states the development of new product stewardship programs will help them:

- i. Shift the costs of material management from taxpayer-funded programs to manufacturers and consumers
- ii. Provide incentives to producers to incorporate environmental considerations into the design of their products and packaging.

Respectfully, we have to note that to-date there are no comprehensive studies which correlate the relationship of EPR programs for packaging in achieving either of these goals.

Waste collection systems operate independently and often face a multitude of contractual obligations, as a result, there has been no comprehensive study to date to ascertain effectiveness. Even within the European Union, the extent to which producer responsibility fees cover net operational costs are highly variable.<sup>11</sup> Additionally, Europe also engages a myriad of additional policy initiatives embedded within their different approaches—policies such as PAYT, landfill bans and mandatory recycling. As these programs all act as a collectively towards increased recovery, it becomes difficult to ascertain the exact impact of each initiative. The broad range of approaches further challenges the ability to benchmark and assess performance.

In the 1980s, the Resource Conservation Committee, a congressionally authorized taskforce, analyzed the potential of a national disposal charge similar to today's extended producer responsibility (EPR). The taskforce voted against the proposal partly because of a lack of data to prove program coordination, enforcement and awareness would reduce overall system costs<sup>12</sup>. Further, if we look more recently at take-back programs for electronics, we are witnessing an increase in fees and unanticipated costs<sup>13</sup> partly as a result of fluctuations in commodity pricing. What started as a promising solution is now becoming a cost-burden on both states and manufacturers.

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<sup>11</sup> <http://www.globalpsc.net/european-experience-on-extended-producer-responsibility-epr/>

<sup>12</sup> United States, Resource Conservation Committee, "Choices for Conservation: Final Report to the President and Congress" p. 113-120, (EPA 1980).

<sup>13</sup> Robinson, Susan "The State of Electronic Waste in the U.S." (March 2016) Waste Management White Paper. <https://www.greenbiz.com/article/too-much-good-thing-hobbles-best-buys-e-waste-recycling>

The effectiveness of EPR on promoting green design is unproven<sup>14</sup>. Noah Sachs notes that “the ‘collective’ approach to product stewardship ‘pools’ products and fees and therefore independent actors have no incentive to design differently than their peers”. It is difficult to assess the role of EPR on green design in the EU, as they also apply a toolkit of approaches to encourage environmental product design<sup>15</sup>. Furthermore, according to US EPA data, there has been an 11 percent decrease in per capita packaging generation in the U.S. since 2000<sup>16</sup>. During the same time period, per capita packaging generation has remained relatively constant in Europe, in spite of their EPR and other programs.

## 5. Evaluate and identify existing industry-funded voluntary measures as tools to reach DEEP’s goals.

In relation to its stated goals and objectives, AMERIPEN encourages DEEP to explore three significant initiatives led by the private sector and designed to help increase recovery and finance recycling systems across the country:

- i. **The Recycling Partnership**<sup>17</sup> works to increase access and efficacy of municipal recycling programs. It also offers financial support to place large recycling carts in communities. These carts have been proven to increase the amount of recyclables collected<sup>18</sup>. As the State seeks to increase access to single stream recycling, and improve the quality of material collected, the Recycling Partnership can be an effective resource in identifying best practices and funding support.
- ii. Funded by a consortium of private brands, **The Closed Loop Fund**<sup>19</sup> provides no-interest loans to communities and States, and low-interest loans to private entities. Funds are designated to help increase the capacity of recycling systems. The Closed Loop Fund is also currently exploring a future proposal to fund the development of an organics collection infrastructure. We believe they may offer a valuable funding source to assist DEEP with their desire to increase sortation capacity within the State.
- iii. The American Chemistry Council and the Sustainable Packaging Coalition jointly developed the **WRAP Program**<sup>20</sup>. WRAP helps create and support the infrastructure needed for plastic film collection and drop-off systems. Developing collection

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<sup>14</sup> <http://www.globalpsc.net/european-experience-on-extended-producer-responsibility-epr/>

<sup>15</sup> Additional tools applied to incent green design include: REACH & The Essential Requirements for Packaging

<sup>16</sup> “Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2012”. U.S. EPA 2013. [https://www3.epa.gov/epawaste/nonhaz/municipal/pubs/2012\\_msw\\_fs.pdf](https://www3.epa.gov/epawaste/nonhaz/municipal/pubs/2012_msw_fs.pdf)

<sup>17</sup> <http://recyclingpartnership.org/>

<sup>18</sup> “A Guide to Implementing a Cart-Based Recycling Program”. The Recycling Partnership. 2015.

[http://tools.recyclingpartnership.org/wp-content/uploads/2015/09/digital\\_carts\\_guide.pdf](http://tools.recyclingpartnership.org/wp-content/uploads/2015/09/digital_carts_guide.pdf)

<sup>19</sup> <http://www.closedloopfund.com/>

<sup>20</sup> <http://www.plasticfilmrecycling.org/>



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infrastructure for plastic films may help DEEP with their diversion goal and at the same time, reduce contamination and equipment damage at municipal recycling facilities.

All programs are demonstrating significant impacts on increasing recovery within an aging and challenged recovery system.

AMERIPEN appreciates the opportunity to comment on DEEP's draft "Comprehensive Material Management Strategy: 2016 Connecticut Solid Waste Management Plan". We believe a shift towards sustainable materials management is a promising step which will offer the citizens of Connecticut a comprehensive solution for many environmental and waste management challenges.

We ask that you please consider our recommendations as DEEP moves towards a final strategy. We would be pleased if you would consider AMERIPEN to be a valued partner in your efforts to increase packaging recovery and recycling.

Sincerely,

AMERIPEN



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April 22, 2016

Lee Sawyer  
Connecticut Department of Energy and Environmental Protection  
MMCA  
79 Elm Street  
Hartford, CT 06106

Via E-mail: DEEP.CMMS@ct.gov

Re: Proposed Updates to the 2006 Solid Waste Management Plan

Dear Mr. Sawyer:

The Association of Home Appliance Manufacturers (AHAM) would like to comment on the Department of Energy and Environmental Protection's Draft Comprehensive Materials Management Strategy – 2016 Connecticut Solid Waste Management Plan (Draft Strategy). We do not believe the Draft Strategy should include “implementation of an EPR system to cover packaging and printed paper.”

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. In the U.S., AHAM members employ tens of thousands of people and produce more than 95% of the household appliances shipped for sale. The factory shipment value of these products is more than \$30 billion annually. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience.

### **I. EPR is Not a Proven Solution to Waste Management Challenges**

AHAM disagrees with the premise of the Draft Materials Management Strategy regarding the efficacy of adopting a policy of Extended Producer Responsibility (EPR). The Draft Strategy states that there are two related “features” of EPR:

1. shifting financial and management responsibility, with government oversight, upstream to the producer and away from the public sector; and
2. providing incentives to producers to incorporate environmental considerations into the design of their products and packaging.

We offer a different interpretation of the purported benefits of EPR. AHAM understands that the intent of EPR is to require producers to pay for the public sector's cost of waste disposal or recycling. In practice, however, there is no actual shift in financial responsibility to the



producer. Instead, the additional tax or costs to pay for an EPR stewardship program may well be passed through by product manufacturers and wind up being placed on the residential household. While this result would likely reduce costs to the municipality, there should be an offset of reduced waste and recycling fees charged by the municipality. However, we have yet to see municipalities lower those fees in jurisdictions where EPR has been mandated. Instead, the municipalities or other solid waste and recycling entities continue to charge the public the same amount for their services as they did prior to implementation of an EPR program. Absent any offsetting reductions in their municipal solid waste and recycling fees, consumers are caught in the middle and often wind up paying more.

To make matters worse, what EPR programs actually do is create a disincentive through these increased costs. The cost increase from EPR could deter consumers from purchasing new appliances that are more energy and water efficient, more sustainable and safer. It is a mischaracterization to suggest EPR somehow shifts the financing of waste and recycling from the public sector to the producers. If the DEEP includes EPR as a possible actionable strategy, then it should be accurately characterized as a new tax or cost on consumers or state that any responsibilities that are removed from the public sector must be accompanied by a corresponding reduction in municipal waste and recycling fees.

In addition, EPR attempts to insert a product manufacturer into the waste and recycling stream of commerce, but the manufacturer has no authority or ability to influence entities that are managing waste and recycling, nor are manufacturers able to change consumer behavior regarding recycling. In reality, EPR often results in a new fee or tax that is by and large used to pay for the administration of a stewardship organization and the government agency that is providing oversight. In Canada, Ontario, Manitoba and Quebec currently have mandatory EPR programs for packaging and many products. This resulted in so many stewardship agencies that the governments were required to create an entity charged with overseeing all the stewardship organizations – yet a third bureaucracy to fund through the increased fees. This is hardly a model of efficiency.

Regarding the second “feature” of EPR cited in the DEEP Draft Strategy, these policies actually offer no incentive for producers to incorporate environmental considerations into the design of their products and packaging. This is an oft-stated and incorrect aspect of EPR. Appliance manufacturers are already driven to make high quality, sustainable products for their customers. Manufacturers continually evaluate materials that are used in the development of their products and packaging and over the years have consistently increased the sustainability of both. In fact, AHAM is a leader in this area with its proactive work in publishing bi-national sustainability standards for its products with UL and the Canadian Standards Association. AHAM members are for-profit companies and look to minimize costs in the packaging that ultimately gets discarded by the consumer so they can focus on investments in the product. However, this packaging needs to be robust so the product does not get damaged in the warehouse where large appliances like refrigerators can be stacked three high, or in trains, or with forklifts lifting them up from the sides. It also needs to be strong enough to protect the product in varying weather conditions.

The Draft Strategy asserts that forcing all manufacturers to pay fees for their products will provide them an incentive to incorporate environmental considerations into the design of a product, but charging every manufacturer an arbitrary fee per product whether it is made out of more recyclable material or not provides no financial incentive in this area. Further, what is a “good” package? Is it lighter, or less volume, or more recyclable material? Imposing an additional fee on every product may simply raise the cost of the product for consumers.

Therefore, given that the Draft Strategy includes EPR as a policy option based on two flawed rationale, EPR should be removed from the final strategy.

## **II. Appliance and Their Packaging Should Not Be Included in Any EPR Program**

No state has ever mandated an EPR program for appliances -- and for good reason, as predicted recovery rates are often greatly overestimated. The expectations should not be too high for the recovery of products by producers because they are not part of the waste stream of commerce and have no authority over those who are.

Examples of real recovery rates from EPR policies currently exist. The Canadian province of British Columbia (BC), for example, has attempted to create a small appliance stewardship program. Although it is in its early stages, the initial recovery rates within BC’s EPR-type program are well below 10 percent, despite over 100 recycling sites and millions of dollars spent on advertising. Similarly, the European Commission (EC) had to revise its Waste Electrical and Electronic Equipment (WEEE) recycling directive to reduce its goals for recycling rates as the original goal was far too high. But even by revised assessments, the EC was only able to establish a target of 65 percent product recycling by 2016, which clearly falls short of the actual 90 percent recycling rate already being reached in the United States for major appliances. This success was achieved even without inserting a traditional EPR-type program into the recycling process. Furthermore, a UN University Institute for Sustainability and Peace study stated that the 65 percent target was “ambitious” and that compliance is “uncertain.”<sup>1</sup> Moreover, a 2008 U.N. University review of the WEEE directive states major appliances should not be part of any EPR program, precisely because of the high recycling rate of such appliances.<sup>2</sup>

It is not appropriate to include appliances in an EPR program. Appliances have significantly longer lives than many other consumer products and are often passed on or sold to others for reuse. Packaging for major appliances by and large does not even end up as residential waste or recycling. These products are usually delivered and installed in a home, and the packaging is taken by the delivery agent who then recycles the material that has value. Thus, durable products and their packaging do not enter the waste stream at the rates of some other products, so they are a very small percentage of waste generation. Some major appliances have life-spans that average 20 years or more. Many portable and floor care appliances have life-spans that are well above 10 years. These products do not constitute a priority impact on existing solid waste streams because they are such a small part of waste generation and have recyclable material that

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<sup>1</sup> United Nations University Institute for Sustainability and Peace (UNU-ISP), *WEEE recast: from 4kg to 65%: the compliance consequences*, Bonn, March 2010

<sup>2</sup> United Nations University, *2008 review of Directive 2002/96 on Waste Electrical and Electronic Equipment (WEEE)*, August 2007

minimizes the material that ends up in a landfill. Many portable and floor care appliances have valuable metals and other materials that enter the recycling stream through the “general” category of materials. Therefore, it may not be known how much exactly is recycled because there are many smaller products with high value material that are separated out by a waste recycler and processed for return to the base substances.

In Connecticut, according to DEEP, most packaging (~70%) enters the recycling stream and that 100% of the households in Connecticut have access to recycling. DEEP should not create an inefficient, flawed program such as EPR to address a minority of the packaging that does not enter the recycling stream. EPR would increase costs by paying for stewardship organizations administrative activities, but would have no impact on whether someone decides to throw a package in the trash can versus the recycling bin. Instead, DEEP should focus on maximizing the existing infrastructure and recycling facilities

One source of data that the DEEP may find informative is from the U.S. Environmental Protection Agency (EPA). The latest EPA Materials Management Report from the June 2015 Waste Audit indicates that small appliances are only 0.8 percent of solid waste generation. Regarding major appliances, they continue to be recycled in market-based systems at rates above 90 percent because of their high-value metal content and they are generally delivered, installed, and the packaging removed from the home. Therefore, appliances and their packaging do not represent a major component of the solid waste stream and should not be within the scope of this Strategy.

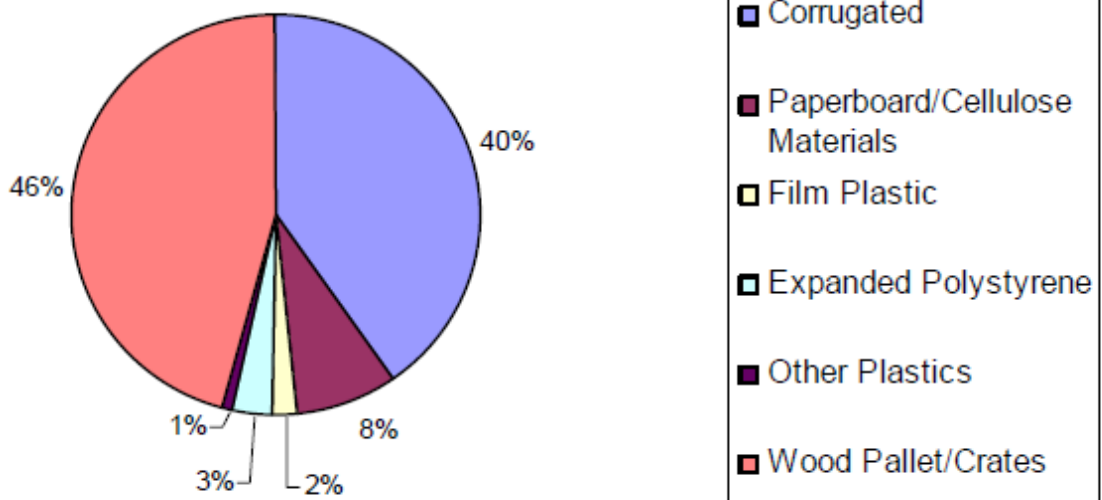
It is also important to note that even though appliance packaging is a minimal portion of the waste or recycling tonnage, this packaging also is comprised mostly of paper and wood, materials that are highly recyclable. A study done on appliance recycling by R.W. Beck and Weston Solutions dismantled appliances and analyzed their material composition.<sup>3</sup> This study found the following results for major appliance packaging:

- 46 percent was wood crates or pallets
- 40 percent was corrugated cardboard
- 8 percent was other types of paper
- 6 percent was polystyrene and other plastics

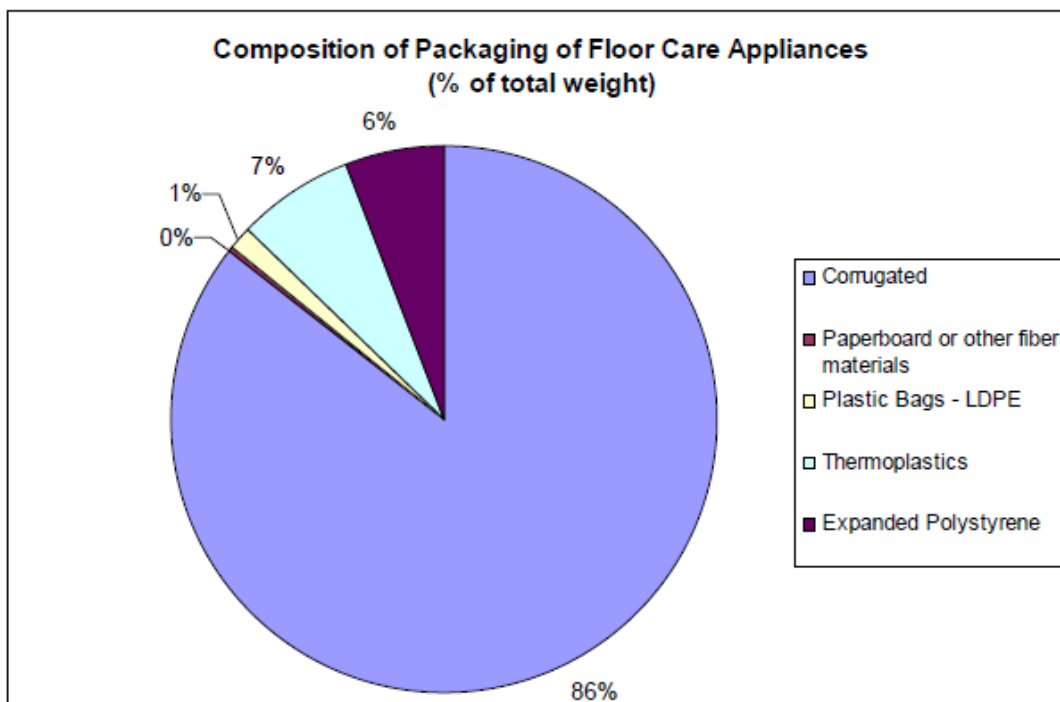
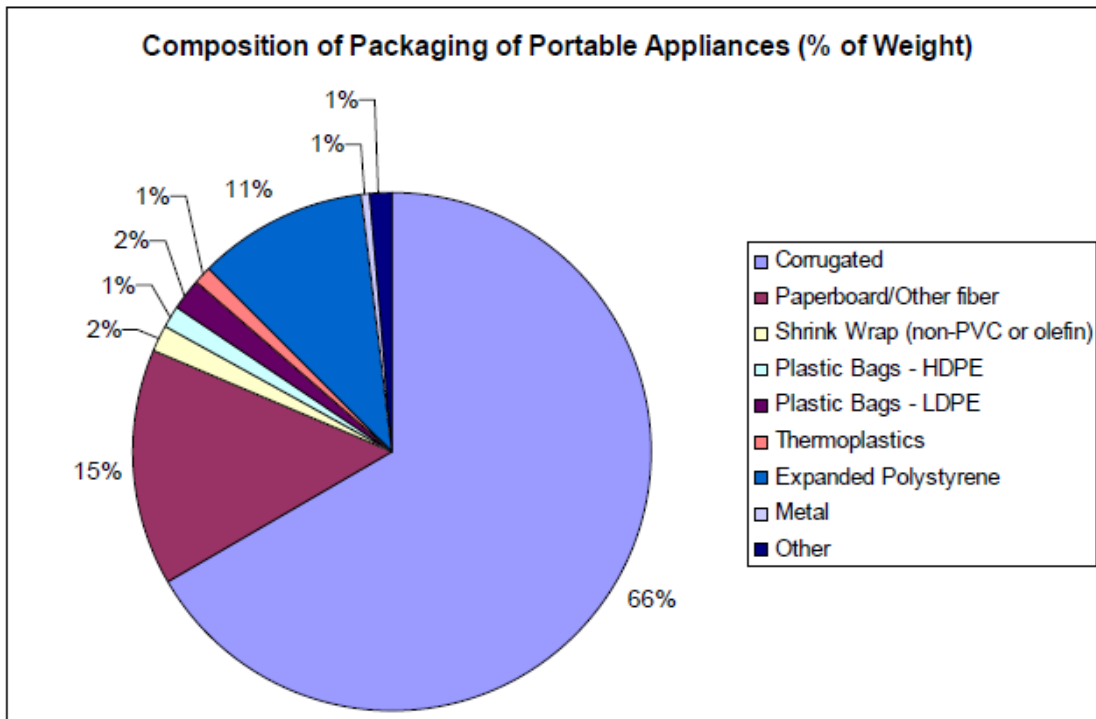
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<sup>3</sup> R.W. Beck & Weston Solutions, *Recycling, Waste Stream Management, and Material Composition of Appliances*, December 2005

### Material in Appliance Packaging by Weight, 2005



Regarding small appliances, R.W. Beck and Weston Solutions found the following composition of packaging material:



The report also found that most U.S. and Canadian local governments surveyed for the study indicated that residents and businesses have access to recycling programs for corrugated paper (cardboard). Also, approximately 40 percent of the local governments surveyed for the report said that wood recycling programs are available and 67 percent of U.S. local governments surveyed had access to boxboard and/or mixed paper recycling.

Therefore, because EPR recovery rates are greatly overestimated, and appliances do not contribute significantly to the waste or recycling tonnage and the material in appliance packaging is mainly recyclable material, there is no need to include appliances in any potential paper and packaging EPR program. The recycling objectives of such programs are already being achieved in the absence of EPR requirements.

### **III. Food Waste Need Not Be A Waste or Recycling Problem**

The Department of Energy and Environmental Protection (DEEP) 2015 Waste Characterization Study shows that the two largest contributors of waste are paper (23.1%), and food waste (22.3%) - neither of which needs to be a concern for DEEP.

Paper is used in packaging for appliances, but paper is highly recyclable. According to the American Forest & Paper Association, more than 60 percent of paper consumed in the U.S. has been recovered for recycling in each of the last three years, exceeding 66 percent in 2011, and annual paper recovery has nearly doubled since 1990.<sup>4</sup>

Food waste disposers are an affordable and highly effective solution to the problem of food waste. Food scraps average 70 percent water and diverting them from landfills to wastewater treatment plants is a proven disposal option.

According to the Water Environment Research Foundation (WERF), utilizing a food waste disposer in the residence and sending the output to a wastewater treatment plant operating with anaerobic digestion is the least costly option for addressing food waste.<sup>5</sup> PE Americas conducted a comparative life cycle assessment of multiple food waste management systems. Twelve end-of-life disposal options were modeled to represent the majority of food waste pathways in the U.S., including:

- 8 wastewater treatment plant systems
- 1 incineration system
- 2 landfill systems
- 1 composting system

This assessment found that using a food waste disposer in conjunction with any of the eight wastewater treatment systems results in lower global warming potential than either landfilling option. For a community of 30,000 households, using any of the eight wastewater treatment

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<sup>4</sup> Paper Recycles, <http://www.paperrecycles.org/recycling-resources/paper-recycling-a-true-environmental-success-story>, last visited on February 11, 2016.

<sup>5</sup> Water Environment Research Foundation (WERF), *Cost Effective, Sustainable Alternatives to Landfills for Managing Food Waste: Sustainable Food Waste Evaluation (OWSO5R07e)*, April 2012



options to dispose of food waste instead of landfilling on average would reduce the carbon footprint by 1.9 million kg, the equivalent of driving 4.6 million fewer miles.



This is not just a theoretical solution. Philadelphia recently tackled the challenge of diverting household food scraps from the trash by requiring in-sink food waste disposers for any new residential construction. Food waste disposers can effectively prevent food waste from going to landfills. We encourage DEEP to consider these effective and cost efficient products to reduce landfill tonnage.

#### IV. Conclusion

As DEEP updates its Solid Waste Management Plan to provide Connecticut’s “vision and roadmap to transform Connecticut’s aging material management infrastructure,” this Strategy should not include an “actionable strategy for the implementation of an EPR system to cover packaging and printed paper.” Appliance packaging is mainly comprised of highly recyclable paper and wood. It is recycled based on a market-driven system that government interference is more likely to disrupt and create complications that could reduce recycling rates. Experiments with EPR in Canada and Europe have fallen far short of their objectives. In both cases, recovery rates were grossly overestimated and costs were significantly underestimated. The current system for appliances and appliance packaging works, and it should be allowed to continue on its successful path.

In addition, AHAM recommends a realistic and impactful solution to diverting food waste from landfills. Food waste is about a quarter of Connecticut’s waste, and we would welcome the opportunity to work with DEEP on installing food waste disposers in homes to divert this tonnage from landfills.

AHAM appreciates the opportunity to comment on the Draft Comprehensive Materials Management Strategy and would be glad to discuss further these important public policy issues. Please contact me or Kevin Messner at (530) 309-5629, [kmessner@politicallogic.net](mailto:kmessner@politicallogic.net) with any questions.

Sincerely,

Robert D. McArver  
Vice President, Policy & Government Relations

February 22, 2016

Mr. Lee Sawyer  
Bureau of Materials Management and Compliance Assurance  
Connecticut Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

Dear Mr. Sawyer:

Connecticut is best served environmentally and economically by allowing the carpet industry to identify appropriate, market-driven solutions for reusing and recycling carpet at the end of its lifecycle.

Carpet product stewardship legislation in Connecticut will be costly and unnecessary. Money spent managing complex product stewardship legislation will further damage Connecticut's already struggling economy by increasing costs to retailers, and ultimately, consumers. It will threaten local businesses and jobs, while providing little incremental benefit to the environment. More than 500 jobs at nearly 140 Connecticut flooring retailers could be negatively affected. Carpet product stewardship legislation also will stall innovation by redirecting limited resources to respond to needless regulation.

Carpet manufacturers have long led the way in creating innovative ways to repurpose discarded carpet nationwide. The industry has a proud history of working with government, environmental organizations and businesses towards sustainability, in particular identifying market-based solutions to reusing and recycling carpet.

Nearly 200 carpet manufacturers, recyclers and other industry partners are members of the Carpet America Recovery Effort (CARE), a voluntary non-profit organization whose members have diverted more than 3.63 billion pounds of carpet from U.S. landfills since 2002 by reducing, reusing and recycling.

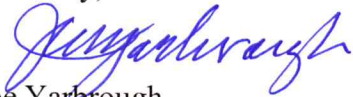
What's more, in January 2015 the Carpet and Rug Institute and CARE launched a new, voluntary product stewardship program that provides financial assistance to qualified U.S. sorters that divert discarded carpet from landfill. This national program will further stimulate carpet recycling efforts throughout the United States – including Connecticut – while increasing market demand for post-consumer carpet.



There are many challenges of recycling carpet due to product variability, the multiple components in all carpet types, the difficulty of deconstructing all carpet types, as well as the low percentage of any carpet materials that can be harvested for recycling, all of which make one-size-fits-all carpet product stewardship legislation ineffective and potentially damaging. In Connecticut, there is an opportunity to assess outcomes of mattress product stewardship legislation before legislation expands to other industries. The carpet industry will continue its work with local and national businesses, retail associations, municipal solid waste operators, transportation companies, carpet manufacturers and distributors, recyclers and others to identify alternative and sustainable ways to reuse and recycle carpet on a voluntary basis in Connecticut, while identifying new end markets.

Expertise and collaboration from all entities is vital for a successful solution, and the carpet industry continues to be willing and eager to work with partners to address carpet recycling in Connecticut. We encourage the Connecticut Department of Energy and Environmental Protection to continue to monitor the progress of CARE, but submit that rulemaking to pursue product stewardship efforts related to carpet is not the correct path forward for Connecticut.

Sincerely,



Joe Yarbrough  
President, The Carpet and Rug Institute





April 15, 2016

Lee Sawyer, MMCA  
Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106

**Subject: Comments on the draft Connecticut Comprehensive Materials Management Strategy**

Dear Mr. Sawyer,

I'm writing to provide Carton Council comments on the draft Connecticut Comprehensive Materials Management Strategy (CMMS). The Carton Council is composed of four leading carton manufacturers, Elopak, SIG Combibloc, Evergreen Packaging and Tetra Pak, as well as an associate member, Weyerhaeuser. Formed in 2009, the Carton Council works to deliver long-term collaborative solutions in order to divert valuable cartons from the landfill. Through a united effort, the Carton Council is committed to building a sustainable infrastructure for carton recycling nationwide and works toward their continual goal of adding access to carton recycling throughout the U.S. In part due to our efforts, more than 58 percent of all U.S. households have access to carton recycling today, up from 18 percent just four years ago, and carton recycling is growing nationally.

The draft CMMS prepared by the Connecticut Department of Energy and Environmental Protection (DEEP) is a bold plan that lays a foundation for advancing recycling in Connecticut. In particular, the Carton Council strongly supports the proposed actions described under Objective I, which are aimed at improving the performance of municipal recycling systems and increasing compliance with mandatory recycling provisions. These Objective I proposed actions are exactly what is needed to ensure continued growth and vibrancy of comprehensive local recycling services in Connecticut, including:

- Stronger enforcement of existing mandates;
- Promoting unit-based pricing and best management practices for local recycling programs;
- Expanded, statewide education and outreach programs (preferably with a goal of harmonizing programs and messaging); and
- Stronger reporting and data analysis systems.



# Carton Council

We also support the proposed actions under Objective II, especially the need to assist local MRFs and collection programs in adapting to changing material streams and markets. Combined, the proposed actions under Objectives I and II provide a sound, effective strategy to advance Connecticut recycling in coming years.

We are concerned, however, that the CMMS does not address the critical need for stable, consistent state funding to support DEEP's efforts. The Carton Council is supportive of an increase in the current disposal surcharge to meet this need, along with its extension to cover all disposed waste (not just waste-to-energy in Connecticut as is currently the case).

Regarding Objective III, we believe there are many important issues and concerns that must be analyzed and addressed prior to considering EPR for packaging and printed paper. The Carton Council believes that what is appropriate at this time is voluntary, constructive dialog among all stakeholders with an interest in expanding and strengthening recycling systems, to identify effective strategies that can be widely supported.

Please do not hesitate to contact me with any questions at: 847 955 6280.

Sincerely,

Elisabeth Comere  
Carton Council and Tetra Pak, Inc.



April 22, 2016      Amended April 13 In-Person Testimony Submitted Via E-mail: [DEEP.CMMS@ct.gov](mailto:DEEP.CMMS@ct.gov)

Connecticut Department of Energy and Environmental Protection  
Attn. Lee Sawyer  
Project Manager, Bureau of Materials Management and Compliance Assurance  
79 Elm Street  
Hartford, CT 06106

Re:      **CTA Testimony on 2016 Draft Connecticut Comprehensive Materials Management Strategy  
April 13, 2016 Hearing**

Commissioner Klee and Mr. Sawyer:

The Consumer Technology Association™ (CTA) appreciates the opportunity to express concerns to the Department of Energy and Environmental Protection (DEEP) over the 2016 Draft Connecticut Comprehensive Materials Management Strategy (CMMS or Strategy), in particular the proposal for an Extended Producer Responsibility (EPR) program packaging.

CTA, formerly the Consumer Electronics Association (CEA)®, is the premier trade association representing the U.S. consumer technology industry. Eighty percent of CTA's more than 2,200 companies are small businesses and startups; others are among the world's best known manufacturing and retail brands. Our member companies have long been recognized for their commitment and leadership in innovation and sustainability, often taking measures to exceed regulatory requirements on environmental design, energy efficiency and product and packaging stewardship. In fact, according to [EPA](#), *consumer electronics is now the fastest-declining portion of the municipal solid waste stream*.

CTA supports Connecticut's interest in identifying and evaluating additional opportunities for the sustainable management of materials in its waste streams. Our comments today focus on lessons learned from CT's EPR program for electronics recycling from the perspective of the affected industry, and concerns with the Strategy's proposed EPR program for packaging materials. CTA is a member of the Product Management Alliance (PMA), and supports PMA's testimony before the Department today.

**Extended Producer Responsibility In the U.S. Is Problematic:** The Strategy relies heavily on the principle of Extended Producer Responsibility, which in theory, shifts some or all of end-of-life costs from municipalities/collectors to product manufacturers. Also in theory, the cost to recycle the given product or its packaging is transferred from the municipality (programs supported by taxpayers via local taxes or waste disposal fees) to the producer (via a visible fee or cost internalization paid for by the consumer). In all cases, the cost is ultimately borne by the consumer and it is inaccurate to tout such an EPR program as "no cost to the taxpayer," (CMMS, page 36), since for products that are widely sold, the

cost is paid for by the same individuals via another method. As proposed in the CMMS, EPR for packaging would shift the cost of all packaging recycling from municipalities to producers, but the draft Strategy fails to acknowledge that not all packaging has a cost to recycle - in fact much packaging has intrinsic value in the recycling stream, thus the relatively high recycling rates for packaging by retailers and by consumers when given the opportunity.

The consumer electronics industry has more than a decade of experience with state-level EPR electronics recycling laws in the U.S. – an experiment spread across Connecticut and 24 other states, plus DC and Puerto Rico, with a patchwork of laws that has proven very costly and very inefficient across jurisdictions. Problems and unintended consequences experienced in EPR states are due to multiple factors, including but not limited to:

- Inherent unfairness of allocating costs across products and materials that have very different recycling values and environmental concerns
- Volatility of the commodities market, which affects prices and demand for recycled metals, plastics, glass, etc.
- Inability of these state laws to accommodate rapid changes in product technologies and materials
- Inability to internalize the cost of recycling heavy legacy electronic devices – such as cathode ray tube (CRT) televisions and monitors – whose production predates U.S. EPR laws, but whose presence dominates the weight of incoming products for recycling
- Lack of end markets for recycled CRT glass in the U.S.
- Lack of harmonization of programs across states (i.e., registration dates, fees, scope, etc.)
- High administrative costs for state programs
- High cost burdens to manufacturers – both for actual recycling costs and administrative/oversight fees paid to states
- Many manufacturers' tendency to work with large/national third-party certified recyclers for reliably safe recycling and cost optimization, often mismatched with municipalities' and counties' preference to work with a local vendor of choice
- The unintended consequence of putting extreme pressure on local recycling markets – adverse effects on local markets have had a negative effect on the long-term sustainability of local "green" recycling jobs
- When coupled with mandates such as rates/dates and/or disposal restriction, local governments have been unintentionally signed up as players in the global commodities market

The CMMS touts a variation of EPR ideology that posits "By shifting the costs of materials management from taxpayer-funded government programs to manufacturers and consumers, EPR laws provide for equitable alternative funding sources, which are needed to expand and sustain product end-of-life management programs without depleting scarce government resources. However, EPR does not simply shift costs from the public sector to the private sector; it seeks to minimize costs through economies of scale, product design, and other market forces," (CMMS, page 36). However, CTA's members' experience with the CT electronics recycling program indicates otherwise, as there are no economies of scale or effect on product design, and no market forces in CT as the industry has no control over the selection of vendors.



**For the record, CTA wants to make clear that CT's EPR program for electronics recycling on a per pound basis is the most costly state program in the country. With no market forces, CT recycles roughly half the volume of electronics at double the cost of comparable jurisdictions.** This is due in part to the fact that CT's system is not market-based – the state has sole control over selecting participating recyclers, the state sets the price for recycling, and then recyclers bill manufacturers at non-competitive rates blessed and mandated by the state.

The CMMS also states an EPR myth that “EPR systems provide a direct financial incentive for producers to reduce material use and increase recyclability of their products and packaging through design change. When manufacturers are financially responsible for the collection, transportation, and proper recycling of these products, companies have a natural incentive to design their products and packaging to minimize the costs of end-of-life management and maximize the value of the material once collected. As manufacturers take these factors into account, another goal of EPR is for companies to reduce the use of toxic materials,” (CMMS, page 36). However, manufacturers' direct experience over many years has demonstrated no evidence that product design has been influenced by EPR programs in CT or any other state with an EPR program for electronics. Ironically, the past two decades have shown remarkable achievements in improved design with the elimination of leaded glass and more recently mercury in displays, yet these improvements were wholly due to advancements in technology and business innovation – not government policy.

We are open to talking more in depth at the Department's request about the lessons learned from EPR for electronics recycling, as there are important parallels on economic costs, externalities, and market disruptions that must be considered prior to delving into EPR proposals for packaging and printed paper, such as those in the CMMS. For example, the Strategy does not account for a potential and very likely shift in purchasing behavior by CT consumers, where they might cross state borders to purchase goods elsewhere if costs in CT are higher due to a visible or invisible tax on packaging. Should this typical consumer behavior pattern of tax/cost-avoidance emerge, it would have negative effects on CT's revenues from state sales taxes lost to neighboring states, would likely increase transportation emissions from additional miles driven for purchasing consumer goods – in direct contrast to the state's greenhouse gas emissions goals, and would have a negative impact on local CT jobs if businesses find it too costly to operate in CT.

Before further consideration of the provisions in this Strategy, CTA strongly encourages the Department to investigate the range of potential economic impact of EPR for packaging to consumers, the state, producers and retailers in Connecticut, as well as a more thorough analysis of possible unintended consequences from EPR for packaging. The wrong policy will turn healthy and sustainable package recovery activities – that should be encouraged – into burdensome compliance costs.

**Many Consumer Technology Manufacturers and Retailers Already Utilize Innovative and Sustainable Packaging:** Many consumer technology manufacturers and retailers already recognize that environmentally-responsible packaging represents a worthwhile opportunity to reduce the use of resources, cut emissions, reduce waste and lower economic costs. Many consumer technology manufacturers and retailers already take a deliberately innovative approach to their packaging design choices – voluntary decisions and programs that reduce size and weight, increase the amount of recycled and renewable content, and enhance the recyclability and compostability of boxes, cushions, bags and other packaging materials. Further, many consumer technology manufacturers and retailers already have educational awareness programs on the importance for consumers to recycle their product

packaging. Several real world examples of successful sustainable consumer technology packaging stories can be found in [CTA's 2015 Sustainability Report](#) and attached to this testimony.

Packaging for consumer technology runs the gamut in terms of size and material, and manufacturers and retailers of consumer technologies need flexibility in choosing appropriate materials for packaging their products to avoid situations that cause product breakage and damage during transport, as well as deter theft of smaller items from retail establishments. Many packaging options for consumer technologies are already easily recycled by consumers at curbside, which is readily available to consumers in Connecticut. Even packaging for large consumer electronics – such as flat screen TVs – can often be hauled away with relative ease after delivery for responsible recycling by the retailer/installer, or be broken down by the consumer for curbside recycling. Unfortunately, the CMMS fails to recognize the existing sustainable packaging and recycling efforts already in use by the consumer technology industry, and moving forward with the Strategy as drafted would likely restrict choice and flexibility for the sector's manufacturers and retailers and impede innovation in sustainable packaging and its recycling.

**CTA Opposes Broad Authority to Create EPR For Packaging Via Regulation:** Parallel and pertinent to discussion on the CMMS, CTA opposes Connecticut-specific legislation that would grant broad authority to the Department to develop regulations regarding product stewardship and recycled content standards, among other provisions, for all types of consumer packaging used for commercial, wholesale or retail purposes in the state. Legislation of this kind promises to be extremely costly to CT consumers, manufacturers, and employers. CTA remains open to working with DEEP and other stakeholders to identify additional market-based opportunities and public education strategies for packaging, building upon our industry's existing packaging recycling efforts.

**Conclusion:** CTA appreciates the opportunity to provide this testimony to the Department of Energy and Environmental Protection regarding the Draft Comprehensive Materials Management Strategy. We welcome the opportunity to work with the Department to identify other economically viable, pro-innovation and consumer-friendly approaches to our shared goal of reducing waste and increasing opportunities to recycle consumer technology packaging. If you have any questions regarding these comments, please contact me at 703-907-7631 or [aschumacher@CTA.tech](mailto:aschumacher@CTA.tech).

Sincerely,  
THE CONSUMER TECHNOLOGY ASSOCIATION

/s/  
Allison Schumacher  
Director, Environmental Policy and Sustainability

*Enclosures*

April 20<sup>th</sup>, 2016

Connecticut Department of Energy & Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

**Re: Comprehensive Materials Management Strategy Draft**

Dear Commissioner Klee,

The Corporation for Battery Recycling (CBR) respectfully requests this letter be submitted as written comments concerning the Comprehensive Materials Management Strategy draft dated 2.5.16 that is to be finalized in July of this year. CBR's members manufacture and distribute the majority of batteries sold in Connecticut and the US market.

CBR is an organization formed to work with retailers, recyclers, environmental groups, and governments across the country to encourage programs and legislation that promotes the removal of spent batteries from the waste stream in a fair and financially sustainable manner.

CBR opposes the current draft language and extended producer responsibility (EPR) program as proposed and instead favors a comprehensive recycling program for primary and rechargeable batteries that is not included in the draft plan. CBR, the National Electrical Manufacturers Association (NEMA) and the Rechargeable Battery Association (PRBA) have worked together to successfully craft a comprehensive model program for primary and rechargeable battery recycling. We have since spent the past two years with the Department, leadership of the Environment Committee, and other stakeholders discussing and improving upon this model program.

CBR is ready to work with DEEP to craft a comprehensive battery recycling program that will:

- Meet the growing consumer demand for responsible recycling mechanisms for household batteries;
- Reduce the financial and administrative burden placed on municipal governments in the course of properly recycling of batteries; and
- Minimize administrative costs to the state and the burden on Connecticut taxpayers.

CBR supports several core principals as part of a comprehensive program and encourages DEEP to work closely with us to craft a program that encompasses them:

- Level playing field (*i.e.*, all suppliers included – everyone paying their fair share)

- Responsible management/processing of collected batteries
- Shared responsibility and financial sustainability
- A positive impact on the environment
- Appropriate oversight role for the state
- Preemption of local/municipal ordinances

Since CBR and other battery stakeholders are ready and willing to work with DEEP to develop a stewardship program based on the principals above for batteries we propose the timeline for Objective III: Action III (b): for batteries be prioritized ahead of tires, carpet, and other materials to a 2016 – 2017 timeframe so a comprehensive program can be brought before the Connecticut Legislature in 2017.

Thank you for your consideration of our comments. If the Department has any questions or requests for information please contact CBR Staff: Zach Koser at [zkoser@kellencompany.com](mailto:zkoser@kellencompany.com) | 212-297-2137.

Respectfully,



Marcus Boolish  
President  
Corporation for Battery Recycling (CBR)

2200 WILSON BOULEVARD  
SUITE 310  
ARLINGTON, VA 22201

WWW.ENERGYRECOVERYCOUNCIL.ORG



April 11, 2016

Connecticut Department of Energy and Environmental Protection  
Attn: Lee Sawyer, MMCA  
79 Elm Street  
Hartford, CT 06106

*RE: Draft Comprehensive Materials Management Strategy (2016 Connecticut Solid Waste Management Plan)*

Via email at [DEEP.CMMS@ct.gov](mailto:DEEP.CMMS@ct.gov)

Dear Mr. Sawyer,

The Energy Recovery Council welcomes the opportunity to submit our views on the draft Comprehensive Materials Management Strategy. We believe that the waste-to-energy (WTE) sector is a significant reason why Connecticut is one of the most sustainable states in the country with respect to waste management. However, while the draft strategy correctly identified the issues that the waste-to-energy industry faces, it fails to propose any policies or programs to support the continued viability of the existing waste-to-energy facilities that have made Connecticut successful. With these comments, we urge the Department to support and strengthen its waste-to-energy sector as a means to sustainably and responsibly manage solid waste, reduce greenhouse gas emissions, promote local job creation, and reduce reliance on fossil fuels for electric generation.

The Energy Recovery Council is the national trade association representing companies and local governments engaged in the waste-to-energy sector. There are 77 waste-to-energy facilities in the United States, which produce clean, renewable energy through the combustion of municipal solid waste in specially designed power plants equipped with the most modern pollution control equipment. America's waste-to-energy plants have a baseload electric generation capacity of more than 2,700 megawatts. These important facilities process approximately thirty million tons of trash per year, enabling them to send more than 14 million megawatt hours of electricity to the grid, as well as export steam to local users. In addition, waste-to-energy facilities recover and recycle more than 700,000 tons of metals per year. In Connecticut, the five waste-to-energy facilities in Bridgeport, Bristol, Hartford, Lisbon, and Preston process more than two million tons of trash per year and generate more than 1.2 million megawatt hours of renewable electricity.

While there is much to commend about Connecticut's vision implemented through the draft comprehensive materials management strategy, it suffers from its glaring apathy toward the existing waste-to-energy facilities which have allowed Connecticut to landfill less waste than any

other state in the nation. In the very first section, it states that the strategy envisions “maintaining greatest preference for source reduction, reuse, recycling, and composting, while concurrently focusing on state-of-the-art and emerging waste conversion technologies, including but not limited to anaerobic digestion, gasification, plasma arc gasification, pyrolysis, and hydrolysis/fermentation (waste-to-ethanol).” In essence, the draft commits to all strategies with the exception of waste-to-energy, which has served the state so well and which must continue to be a critical part of the Connecticut’s waste management strategy until recycling rates have increased or alternative technologies become commercially viable on a scale to supplement the existing waste-to-energy facilities.

The draft plan states on page 5 that “Moving up the Hierarchy will conserve natural resources, reduce toxins in the environment, generate clean energy, boost industries associated with material management, and mitigate the greenhouse gases (GHGs) associated with the management of waste, virgin material extraction, and product manufacture.” Waste-to-energy offers all of these benefits, yet the plan seeks “to accelerate a transition from Connecticut’s heavy reliance on combustion-based resource recovery.”

We encourage DEEP to adopt a technology-neutral approach to energy recovery in the draft strategy. There is no proven basis on which to favor some energy recovery technologies over others. We believe that all energy recovery technologies can play a vital role in the future of solid waste management and that there is no justification for choosing one technology over another. Connecticut’s existing waste-to-energy facilities have a long track record of commercial-scale operations, emissions reductions, high boiler availability, reliable service and success in promoting safety. While other waste conversion technologies have promise, there are no commercially operating waste conversion facilities in the United States operating solely on mixed municipal solid waste.

The Energy Recovery Council believes that Connecticut’s materials management strategy would have a much better chance of succeeding if it supported the existing waste-to-energy facilities with policy changes, such as restructuring Connecticut’s the renewable portfolio standard to increase pricing for waste-to-energy RECs or the state entering into direct contracts to purchase power from waste-to-energy facilities.

Connecticut’s current renewable portfolio standard does not provide monetary support for the state’s own plants and, in fact, supports existing out-of-state renewable facilities to the detriment of in-state waste-to-energy facilities. As DEEP itself noted in its report titled “Restructuring Connecticut Renewable Portfolio Standard, dated April 26, 2013, [u]nder the current RPS structure, Connecticut ratepayers’ investments in clean energy are going largely to older, out-of-state and not-very-clean biomass and landfill gas facilities”.

In contrast, because of the RPS structure, there is an oversupply of RECs from waste-to-energy facilities in Connecticut resulting in a price of less than \$1/MWH per REC. Clearly one way to support waste-to-energy facilities in Connecticut is to restructure the RPS to redirect some of the investment to in-state waste-to-energy facilities that are cleaner than the out-state facilities where the investment is now going. The RPS policy is particularly unjust because landfills are a major source of methane emissions and CT RPS policy is awarding them with valuable Tier 1

credits, while the towns that use Connecticut's waste to create energy in the state receive Tier 2 credits, which have no value.

The difficult market conditions created by the low price of wholesale electricity and the low cost of landfilling will be felt equally (if not more) by emerging technologies. By "accelerating a transition from...combustion-based resource recovery" without the means to achieve the 60% recycling goal or develop a new waste conversion industry from whole cloth, the state risks accelerating the transition to increased landfilling, which will be the result if more waste-to-energy facilities close before the materials management infrastructure envisioned by the draft strategy has been developed. This would leave Connecticut towns at the mercy of out-of-state landfill price fluctuations with little control over those costs.

Supporting the existing waste-to-energy facilities in Connecticut will ensure that the state continues to reduce greenhouse gas emissions from the waste sector. Recently, the U.S. Environmental Protection Agency recognized in the Clean Power Plan the benefits of waste-to-energy in reducing greenhouse gases from the fossil-fuel fired electric generating units. Waste-to-energy facilities (no matter whether they are combustion, gasification, anaerobic digestion, pyrolysis, etc.) are eligible to generate emission rate credits so that affected sources can use to reduce their greenhouse gas rate. This technology-neutral approach recognizes that an avoided megawatt hour of fossil electricity or an avoided ton of waste landfilled can be achieved by any energy recovery technology as long as it meets the government's requirements for safe and environmentally-friendly performance.

#### WTE Reduces Greenhouse Gases

The greenhouse gas story of Connecticut's waste-to-energy sector is quite compelling. EPA scientists, in a prominent peer reviewed paper, concluded WTE facilities reduce GHG emissions relative to even those landfills equipped with energy recovery systems.<sup>1</sup> In addition, many other governmental and nongovernmental organizations have formally recognized WTE for its role in reducing world-wide GHG emissions including the:

- Intergovernmental Panel on Climate Change ("IPCC") called WTE a "key GHG mitigation technology",<sup>2</sup>
- World Economic Forum (WEF) which identified WTE as one of eight renewable energy sources expected to make a significant contribution to a future low carbon energy system,<sup>3</sup>
- European Union,<sup>4,5</sup>

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<sup>1</sup> Kaplan, P.O., J. DeCarolis, S. Thorneloe, Is It Better to Burn or Bury Waste for Clean Electricity Generation? *Environ. Sci. Technol.* 2009, 43, 1711-1717. <http://pubs.acs.org/doi/abs/10.1021/es802395e>

<sup>2</sup> WTE identified as a "key mitigation measure" in IPCC, "Climate Change 2007: Synthesis Report. Contribution of Work Groups I, II, and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change" [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp. Available at: [http://www.ipcc.ch/publications\\_and\\_data/publications\\_ipcc\\_fourth\\_assessment\\_report\\_synthesis\\_report.htm](http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm)

<sup>3</sup> WTE identified as a key technology for a future low carbon energy system in World Economic Forum. *Green Investing: Towards a Clean Energy Infrastructure.* January 2009. Available at: <http://www.weforum.org/pdf/climate/Green.pdf>

<sup>4</sup> EU policies promoting WTE as part of an integrated waste management strategy have been an overwhelming success, reducing GHG emissions over 72 million metric tonnes per year, see European



- U.S. Conference of Mayors, which adopted a resolution in 2005 endorsing the U.S. Mayors Climate Protection Agreement, which identifies WTE as a clean, alternative energy source which can help reduce GHG emissions. As of September 30, 2013, 1,060 mayors have signed the agreement.
- Clean Development Mechanism of the Kyoto Protocol,<sup>6</sup>
- Voluntary carbon markets,<sup>7</sup> and
- Center for American Progress, which promotes the use of WTE as an important waste management method that can decrease greenhouse gases by reducing emissions that would otherwise occur from landfills and fossil-fuel power plants.<sup>8</sup>

WTE GHG reductions are quantified using a life cycle assessment (LCA) approach that includes GHG reductions from avoided methane emissions from landfills, WTE electrical generation that offsets or displaces fossil-fuel based electrical generation, and the recovery of metals for recycling. According to U.S. EPA, life cycle emission analysis show that WTE facilities actually reduce the amount of greenhouse gases expressed as CO<sub>2</sub> equivalents (GHGs or CO<sub>2</sub>e) in the atmosphere by approximately 1 ton for every ton of municipal solid waste (MSW) combusted.<sup>9</sup>

#### WTE is a Cost-Competitive Source of Renewable Energy

The U.S. Department of Energy's Energy Information Administration (EIA) uses Levelized Cost of Energy (LCOE) to measure the competitiveness of a particular energy resource. EIA defines LCOE as:

*“Levelized cost is often cited as a convenient summary measure of the overall competitiveness of different generating technologies. Levelized cost represents the present value of the total cost of building and operating a generating plant over an assumed financial life and duty cycle, converted to equal annual payments and expressed in terms of real dollars to remove the impact of inflation. Levelized cost reflects overnight capital cost, fuel cost, fixed and variable O&M cost, financing costs, and an assumed utilization rate for each plant type.”*

Based on the assumptions and EIA formulae, the average LCOE from a new WTE facility is approximately \$85 per megawatt hour. This places WTE higher than combined cycle natural gas;

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Environment Agency, *Greenhouse gas emission trends and projections in Europe 2009: Tracking progress towards Kyoto targets* [http://www.eea.europa.eu/publications/eea\\_report\\_2009\\_9](http://www.eea.europa.eu/publications/eea_report_2009_9)

<sup>5</sup> European Environmental Agency (2008) Better management of municipal waste will reduce greenhouse gas emissions. Available at:

[http://www.eea.europa.eu/publications/briefing\\_2008\\_1/EN\\_Briefing\\_01-2008.pdf](http://www.eea.europa.eu/publications/briefing_2008_1/EN_Briefing_01-2008.pdf)

<sup>6</sup> Clean Development Mechanism Executive Board: “Approved baseline and monitoring methodology AM0025: Avoided emissions from organic waste through alternative waste treatment processes.”

Available at: <http://www.cdm.unfccc.int/methodologies/DB/3STKBX3UY84WXOQWIO9W7J1B40FMD>

<sup>7</sup> Verified Carbon Standard Project Database, <http://www.vcsprojectdatabase.org/> See Project ID 290, Lee County Waste to Energy Facility 2007 Capital Expansion Project VCU, and Project ID 1036 Hillsborough County Waste to Energy (WtE) Facility 2009 Capital Expansion Unit 4.

<sup>8</sup> Center for American Progress (2013) *Energy from Waste Can Help Curb Greenhouse Gas Emissions* <http://www.americanprogress.org/wp-content/uploads/2013/04/EnergyFromWaste-PDF1.pdf>

<sup>9</sup> U.S. EPA Office of Solid Waste, *Air Emissions from MSW Combustion Facilities*, <http://www.epa.gov/osw/nonhaz/municipal/wte/airem.htm#7>

comparable to onshore wind, hydro, and geothermal; and less than off-shore wind, solar, biomass, coal with carbon capture and storage, and nuclear. This is comparable to other recently published values for WTE's levelized cost, including those in a recent peer-reviewed article by Duke University scientists (\$94 / MWh)<sup>10</sup> and a 2014 report coauthored by Bloomberg and the Business Council for Sustainable Energy (\$48 - \$130 / MWh).<sup>11</sup>

#### WTE Provides Green Jobs and Boosts Local Economies

The revenues, employment, and labor earnings derived from managing waste, producing energy, and recycling metals are the direct economic benefits of WTE.<sup>12</sup> In addition, these activities generate indirect impacts as well as induced impacts. Total sales revenues at the six WTE facilities in 2011 was \$248 million. The total state economic impact of these revenues is \$428 million. The WTE industry directly employs more than 400 people in the state. The WTE sector also creates an additional 600 jobs outside of the sector for a total of approximately 1,000 jobs. Employees at WTE plants are technically skilled and are compensated at a relatively high average wage. Employees in Connecticut's WTE sector receive about \$36 million in annual salary and benefits. The effect of this direct spending on employee compensation generated another \$31 million of compensation for workers across various associated industries. In addition to the revenues generated by the sector, WTE facilities provide stable, long-term, well-paying jobs, while simultaneously pumping dollars into local economies through the purchase of local goods and services and the payment of fees and taxes.

#### WTE is Compatible with Recycling

Statistics compiled for more than two decades have proven that waste-to-energy and recycling are compatible despite many attempts by naysayers to conclude otherwise. Since research on the subject began in 1992, communities that rely upon waste-to-energy maintain, on average, a higher recycling rate than the national EPA average.

Communities that employ integrated waste management systems usually have higher recycling rates and the use of waste-to-energy in that integrated system plays a key role. There are several factors why the recycling rates of communities with waste-to-energy facilities would be higher than those without. First, communities with waste-to-energy plants tend to be more knowledgeable and forward thinking about recycling and MSW management in general. Second, communities with waste-to-energy plants have more opportunities to recycle since they handle the MSW stream more. Third, the municipal recycling program can be combined with on-site materials recovery at the waste-to-energy plant (e.g. scrap metals recovered at a waste-to-energy plant post-combustion usually cannot be recycled curbside and would otherwise have been buried had that trash been landfilled).

In a paper entitled, "A Compatibility Study: Recycling and Waste-to-Energy Work in Concert, 2014 Update," Eileen Berenyi with Governmental Advisory Associates studied the recycling

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<sup>10</sup> Chadel, MK, G Kwok, LB Jackson, LF Pratson (2012), The Potential of waste-to-energy in reducing GHG emissions, *Carbon Management* (3)2, 133-144.

<sup>11</sup> Global levelized cost range, estimated from figure 18 of Bloomberg New Energy Finance, Business Council for Sustainable Energy (2014), *Sustainable Energy in America Factbook*, <http://www.bcse.org/sustainableenergyfactbook.html>.

<sup>12</sup> Berenyi, E. "Nationwide Economic Benefits of the Waste-to-Energy Sector." Governmental Advisory Associates, Inc. August, 2013.

characteristics surrounding 80 waste-to-energy facilities in 21 states. Recycling data was obtained from 700 local governments, as well as statewide data from the 21 states covered in the report. The report shows that communities with waste-to-energy have an average recycling rate of 35.4%. This is favorable to the 34.9% rate of the 21 states in which facilities are located, although they track very closely. The national average for recycling as estimated by EPA is estimated at 34.7%, while Columbia University 2013 report estimated it to be 28.9 %.

Berenyi concludes that waste-to-energy does not have an adverse impact on recycling rates. The most influential factors that affect these rates appear to be state policies and the proactive stance of a municipality. Communities using waste-to-energy have recycling rates that are slightly above the national average and above the aggregate recycling rate of the states in which they operate. Therefore, it can be concluded that recycling and waste-to-energy are compatible waste management strategies. They form part of a successful, integrated waste management approach in many communities across the United States.

In conclusion, the waste-to-energy sector has served Connecticut extremely reliably for several decades. It has allowed the state to be one of the most sustainable states with respect to waste management as it relies on landfilling less than any other state in the nation. Along with recycling, that success is due in part to Connecticut's development of a strong waste-to-energy presence. We urge the state to modify its draft comprehensive materials management strategy to identify specific initiatives it will pursue to ensure a robust future for energy recovery, including the existing facilities. Ignoring the present will ensure a regressive future that does not comport with Connecticut's stated vision for materials management.

Sincerely,



Ted Michaels  
President

# GREEN EARTH

C A P I T A L

April 22, 2016

Department of Energy and Environmental Protection

Attn. Lee Sawyer, MMCA

79 Elm Street

Hartford, CT 06106

Re: Comments on Draft CMMS

Dear Mr. Sawyer,

Please accept the testimony presented at the April 13, 2016 public hearing on behalf of Green Earth Capital, LLC managing partners as comments for inclusion into the record. Only part of these comments were read into the record. We appreciate the opportunity to comment on this report.

Sincerely,

GREEN EARTH CAPITAL, LLC

  
Alfred N. Kovalik

Managing Partner

88 Broad Street

Guilford, Connecticut

(203) 858-4034

RECEIVED

APR 22 2016

DEPT. OF ENERGY & ENVIRONMENTAL PROTECTION  
BUREAU OF MATERIALS MANAGEMENT  
AND COMPLIANCE ASSURANCE  
WASTE ENGINEERING AND ENFORCEMENT

**Testimony for the Connecticut Department of Energy and Environmental Protection  
Regarding**

**2016 Draft Comprehensive Materials Management Strategy (CMMS)**

**April 13, 2016**

**Testimony of Alfred N. Kovalik, PE, LEP, LEED AP**

**Managing Partner, Green Earth Capital, LLC**

**Guilford, CT**

**RECEIVED**

**APR 22 2016**

**DEPT. OF ENERGY & ENVIRONMENTAL PROTECTION  
BUREAU OF MATERIALS MANAGEMENT  
AND COMPLIANCE ASSURANCE  
WASTE ENGINEERING AND ENFORCEMENT**

I appreciate this timely opportunity to come before the Connecticut (CT) Department of Energy and Environmental Protection (CTDEEP) in regard to contributing to the strategy development for sustainability policy regarding sound materials management. I am representing Green Earth Capital, LLC, a CT environmental remediation and restoration business that supports the application of beneficial use advocating what many perceive as “waste” as a resource. As environmental professionals and Connecticut business owners, we support the efforts by CTDEEP to develop a comprehensive and multi-faceted strategy to address these challenges. Materials management beyond the typical dig, haul and place in landfills approach as a solution, is no longer an added-value luxury or sustainable pollution prevention strategy, but a vital and necessary applied program used by both the private and public sectors to enable strained resources to execute and implement development of important environmental projects in the State of CT.

The 2016 Draft Comprehensive Materials Management Strategy (CMMS) is an action-oriented roadmap to achieve the state’s vision for 60 percent diversion of materials from disposal by 2024. These comments support and emphasize the inclusion of dredged materials and contaminated soils into this strategy. This is timely based on the years of extensive program

development and understanding surrounding the beneficial use of these media to supports revitalization of communities impacted by blight and under-employment.

Two of the CMMS objectives fundamental to achieving the state's goals are that "Connecticut must develop and improve recycling and waste conversion technologies" and "Corporations that design, produce, and market products must share responsibility for stewarding the end of life of those materials in an environmentally sustainable manner." We submit to you today, that technologies and markets exist to achieve these goals using dredged materials and contaminated soil.

Sediment dredged from the Long Island Sound shoreline, ports, marinas and countless inland waterways and much of the impacted soil being generated in the state is disposed of as waste under the current regulatory paradigm. Areas outside of CT have seen the benefit of managing these materials as a resource, not as a waste, to the betterment of the environment and economy. We are here to emphasize the importance that, if sustainably managed, dredged sediment and contaminated soil can help CT revitalize blight and local economies.

Section V.c, "Current State of Materials Management in Connecticut, Management of Other Types of Special Wastes" aptly classifies dredged materials, street sweepings & catch basin cleanings and contaminated soils as "materials". The significant quantities currently being generated in the state are managed by open water dumping or landfilling. The above report correctly notes that CT lacks the policy and physical infrastructure to fully utilize sediment and soil as a resource for beneficial use. The CMMS should clearly and unequivocally support the further development of these solutions.

Technologies for the use of dredged material for beneficial use as an alternative to dumping, whether in an aquatic environment or landfill, have progressed over the last decade. Two of our partners, Eric Stern and Eugene Peck, contributed to the beneficial use section of the Long Island Sound (LIS) Dredged Material Management Plan (LIS DMMP) published by the US Army Corps of Engineers (USACE) in December 2015 in which the technologies and sufficient safeguards that exist to manage and treat sediment for beneficial use are described. These allow natural capital that would otherwise go out of state or to the bottom of LIS, to be redirected towards the challenging opportunities within the state. Similarly, the use of treated soils in blighted areas is now a key program in the State of CT. Combined, these two media have significant applications to economic revitalization and job creation.

Today, CT is at a crossroads in how we approach the environmental challenge of sustainably using “waste” material – we have an opportunity to seize, engage and implement sustainable policy for dredged material and contaminated sediment management. For sustainable solutions, we can no longer discuss soil and dredged material management separately. Soil and sediment are parts of a continuous watershed system. To achieve CMMS objectives, it is critical to adopt an overall system-wide perspective incorporating soil/dredged material – including contaminated material – with conservation and beneficial use from a watershed approach. Such policy will facilitate the integration of soil and dredged material, remediation, ecosystem restoration goals and economic development within a Regional/Urban Watershed Sediment Management Program.

Toward that end, there are three key areas for this committee of focus when considering CMSS and policies to influence sustainable dredged material management.



They are:

- 1) Create bridges between competing regulatory programs that deal with contaminated soil and dredged sediment to ease cleanup decision-making;
- 2) Lessen dependence on confined aquatic disposal units or landfills to minimize impacts from disposal options, such as long distance transport of soil and dredged material; and,
- 3) Promote beneficial use of treated soil and dredged sediment to support economic development and revitalization within urban management and blighted areas throughout the state.

The fragmented nature of the various regulatory processes and agency programs which are often contradictory due to competing objectives presents a serious impediment. The USACE/EPA Dredged Material Management Programs, Superfund, RCRA, and Water Programs that include source control measures and implementation all offer tools to meet this challenge. However, our current governmental structures force sediments travelling through a watershed system to become compartmentalized by regulatory and programmatic boundaries. Consequently, remediation, economic development, port maintenance, source control and habitat restoration are typically assessed, planned and managed separately. This diminishes our ability to balance dredged material management and remediation (contaminated sediment and soil) programs and their associated economic repercussions with port and marina operations and the restoration of habitat, ecological services, and other social values.

Back-end disposition of excavated soils and sediments, as well as continued development and implementation of innovative technologies with beneficial use applications, should continue

to be pursued as an integrated approach with other placement alternatives. The good news is that we are not alone. Successful beneficial use programs exist in many areas of the US and Europe. Regionally, New York has an excellent platform for the continued development and implementation of a sustainable policy approach to dredged material and contaminated sediments in the Port of NY/NJ. The NY/NJ Regional Sediment Management Plan (RSM) which was developed by many stakeholders including, USACE, USEPA, Port Authority of NY/NJ, Hudson River Foundation, NYSDEC, NJDEP, NJDOT, environmental advocacy groups and business representatives is a helpful guidance document that provides a sustainable, system-based (watershed) management framework to solve sediment-related challenges; addressing sediment quality, quantity, and processes by designing near and long-term solutions that mesh the context of a regional strategy and soil/sediment system.

In summary, the value of connecting smart, safe, and practical beneficial use of these materials to areas of blight and underemployment has been demonstrated and can be applied here in Connecticut. We hope that this CMMS will consider specific goals to foster and support beneficial use of these materials.

Thank you for the opportunity to comment.

Green Earth Capital, LLC Managing Partners:

Alfred N. Kovalik  
Eugene Peck  
Todd P. Taylor  
Eric A. Stern



April 22, 2016

Attn: Lee Sawyer  
MMCA  
79 Elm Street  
Hartford, CT 06106

VIA EMAIL: [deep.cmms@ct.gov](mailto:deep.cmms@ct.gov)

Dear Mr. Sawyer,

The Local Search Association respectfully submits the following comments to the Department of Energy and Environmental Protection's Comprehensive Materials Management Strategy (CMMS).

We believe that the priority placed by CMMS on EPR with a focus on packaging and printed paper as a solution to increasing diversion is misplaced. Data from the MSW Composition study show that only 9.4% of recoverable materials remaining in disposed MSW is recyclable fiber and 4.8% is recyclable containers.

On the other hand, compostable organics makes up 40.3% of recoverable materials in MSW. The CMMS itself recognizes that compostable organics represents the largest opportunity to increase Connecticut waste diversion.

Further, paper recovery rates already exceed the diversion rate goal. Statistics from the AF&PA state that paper recovery rates nationally were at 65.4% in 2014, reflecting the existing system for paper recovery works. Regulation of a working system risks hurting more than helping.

Use of paper, especially printed paper, is also in decline. Trying to achieve a 2024 diversion goal by focusing on increasing recovery of a product whose contribution to MSW is being reduced will result in diminishing returns.

Rather than imposing producer responsibility regulation on a highly recyclable product with robust recovery systems in place, other solutions focused on affecting consumer behavior would likely see better results. Pay-as-you-throw regulation or disposal bans would take advantage of and maximize existing infrastructure and collection systems. Yet the CMMS appears to only consider such solutions for toxic waste.

In closing, we appreciate and support the state's efforts to boost sustainable materials management. However, we do not believe EPR legislation is an effective way to accomplish it.

Most sincerely,

A handwritten signature in black ink, appearing to read "Wesley Young", is written over a circular stamp or seal.

Wesley K. Young  
VP Public Affairs

**Comments of the  
Connecticut Chapter  
National Waste and  
Recycling Association**

**On the  
Comprehensive Materials Management  
Strategy (CMMS)  
*Draft 2016 State-wide Waste Plan Update***

**Submitted Via Email  
to the  
Connecticut Department of Energy  
and  
Environmental Protection  
April 22, 2016  
at**

**[DEEP.CMMS@ct.gov](mailto:DEEP.CMMS@ct.gov)**

## **VISION OF THE UPDATE**

CT's Comprehensive Materials Management Strategy (CMMS), also known as the CT Draft Waste Plan Update (hereafter called the draft update), is a laudatory document. It is visionary and offers a hopeful view of the future. Its intent is clearly to further cement our current trend line that has CT's recycling and waste system striving to make the highest and best use of used materials and discards the norm -- and to grow these sustainable practices in all our daily, future activities.

## **CT CHAPTER NWRA INDUSTRY VIEW**

Notwithstanding this vision, we as members of the CT Chapter of NWRA, who are the practitioners working daily in the real world of CT recycling, collection, alternative materials management and disposal operations, see this draft update as an overreach; as fatally flawed; and, as being so disruptive it will set CT's current recycling and waste system back 20 years. The draft update not only exceeds the statutory underpinning of the waste planning process, but it also puts the state's currently environmentally protective recycling, materials management and disposal infrastructure that services the citizens, communities and businesses of the state daily at grave risk.

## **PLANNING & CONSISTENCY**

One major flaw in the draft update involves the distortion of the common sense understanding about what planning is; and how the DEEP construes regulatory consistency with the plan it writes, updates, implements and enforces.

A plan is a tool; and as such is generally used to identify goals and objectives. Further, a plan may offer ideas and methods to help reach those goals. Generally plans are forward thinking documents and they give wide berth to achieve the goals of the plan based on real life variables and situations. We submit that the best waste plans are performance based, allowing for and promoting maximum discretion, flexibility and room for innovation and change.

These characteristics are glaringly absent in this draft plan. In this most recent planning cycle, the DEEP has been hard at work to expand its recycling and waste planning authority and role. Unchecked, through time, the DEEP remains on a path that will eventually totally usurp the role of the state legislature and of local governments in recycling and waste policy and management. A DEEP plan now is no longer a plan pursuant to the widely held understanding of what a plan is. The DEEP plan is now more like a series of edicts, where if CT citizens, communities and businesses do not comply with the terms and conditions of the DEEP plan, the DEEP then readily assumes the role of enforcer to force new programs and mandates on citizens, communities and businesses.

The new levels of DEEP oversight, authority and control contemplated in this draft update should not be allowed to take effect. The NWRA CT Chapter urges all such new DEEP oversight, controls and powers over individuals, communities and industry be brought before the legislature for full vetting and appropriate statutory revisions first, before the DEEP is allowed to implement or utilize any of them.

The NWRA CT Chapter calls for the DEEP to return to creating reasonable waste plans and updates; and to move away from centralizing recycling and waste planning and enforcement authority in itself. And further, we call for all efforts, in in this draft update, to cease that endeavor to centralize a process that historically has been a delegation of authorities between the various levels of CT government and the citizens and businesses of the state.

### **RECYCLING & EXTENDED PRODUCER RESPONSIBILITY (EPR)**

We are the recycling industry when it comes to residential and commercially-generated recyclables. Private sector waste and recycling companies collect the majority of recyclables at the curbside and the loading dock in this country. We also own and operate approximately two-thirds of America's materials recycling facility (MRF) capacity.

In Connecticut, our industry supports more than 19,750 jobs including direct, indirect and “payroll induced” jobs. We have a \$1 billion payroll and an average payroll compensation to our Connecticut employees of about \$ 52,300.00. Our industry collects residential and commercial recyclables throughout this state.

Based on the glowing comments by the CT DEEP and its call for more extended producer responsibility programs in this update, one might think the recycling industry would embrace this DEEP policy push as the cure for all that ails recycling. From our experience collecting and processing recyclables, we know it is not the cure. Even worse, we are concerned that it will do little to advance recycling and that many of the recycling jobs in Connecticut will be lost if this plan proceed unaltered.

### Why CTs recycling industry opposes the EPR Vision in the Draft Update

In theory extended producer responsibility (otherwise known as EPR) sounds great. Make manufacturers pay for recycling their products and the result will be more easily recyclable and less toxic packages whose collection and processing is paid for by manufacturers, not local governments. However, it is essential to examine these programs in practice in order to determine whether they are effective. Let’s look at the facts. The packaging and printed paper extended producer responsibility laws in Europe have done nothing to change either packages or printed paper to make them more recyclable. European packages and paper products have evolved in the same way as those in America, with lighter weight packages continuing to displace heavier packages and with printed paper in decline. As recyclers, we would prefer that packages be designed to be as recyclable as possible. However, we also know that packagers have a host of other design considerations, including product preservation and security. They are also increasingly aware of the need to design a package in accord with the principles of Sustainable Materials Management with the goal of minimizing the overall impact of the package on the environment<sup>[1]</sup>. Moreover, making package manufacturers responsible for the recycling of their products makes as much sense as making recyclers responsible for package design.

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[1] See <https://www.epa.gov/smm>



In regard to the reduction of toxics in packaging, Connecticut, through its adoption of legislation in 1990 to eliminate the use of lead, mercury, cadmium and hexavalent chromium in packaging, has already accomplished more than this legislation will achieve. And the state is commended for its continued leadership in this area as a member of the Toxics in Packaging Clearinghouse.

Clearly, the strongest argument in favor of extended producer responsibility is the claim that it will relieve local governments of the cost of recycling. To be sure, this argument has a kernel of truth. But the reality is that the local governments will only receive what the producer believes to be a reasonable fee for the recycling services provided. On the surface, that is an understandable response to control program cost; program costs to be borne ultimately by the consumer. It means that local governments are not likely to have all of their costs covered. Moreover, taxpayers are not likely to pay lower taxes. Instead, they will pay twice, once as taxpayers and a second time as consumers. Since lower income residents of Connecticut spend a larger portion of their income on packaging, they will pay a disproportionate share of the cost.

When reading this draft update, one might think that DEEP intends to have individual manufacturers assume extended producer responsibility for their own products. However, this is not defined absolutely. In fact, individual producers will form a third party organization to carry out those responsibilities. As Noah Sachs pointed out in “Planning the Funeral at the Birth: Extended Producer Responsibility in the European Union and the United States”, a Harvard Environmental Law Review article, companies will invariably opt for a collective approach instead of an individual approach because the transaction costs of individual responsibility are far greater than those of the collective approach<sup>[2]</sup>. He also noted that participation in an industry-wide producer responsibility organization takes away any incentive to lower the recycling costs of individual products because those costs are spread among all of the participants.

An industry-wide producer responsibility organization is in fact, a “monopsony” or a single buyer of services. Cartel is another term for this kind of organization. As such it will have complete control over all aspects of recycling of its products. It

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<sup>[2]</sup> [http://www.law.harvard.edu/students/orgs/elr/vol30\\_1/sachs.elreuroexperiment.pdf](http://www.law.harvard.edu/students/orgs/elr/vol30_1/sachs.elreuroexperiment.pdf)

will have little incentive to pay collectors and processors a fair price as it endeavors to keep its costs as low as possible.

To make matters worse, these producer organizations do not relish competition. Recently the Canadian province of British Columbia rejected a proposal from a group that wanted to compete with Multi-Material British Columbia (MMBC). MMBC is the existing producer responsibility organization for packaging and printed paper in that province. The reason cited by the Ministry of the Environment for rejecting the competitor's proposal was that approval of the competing plan "could involve a risk of service reductions to existing producer-funded services (i.e. the implications of StewardChoice Enterprises Inc. drawing producer funding away from MMBC appear not to have been well conveyed")<sup>[3]</sup>. In other words, MMBC is too big to fail. As a result, the province is willing to support a complete monopoly for recycling services. Is this what you want for recycling in Connecticut? Competition is by far the better solution as it drives innovation, gives customers choice and keeps costs reasonable for all of citizens, communities and businesses.

In addition, MMBC which has a \$30 million CN operating surplus, has forcibly rejected cries for an audit of its books by the Provincial Auditor. The producer responsibility organization argued it was not created or appointed by the BC government, it is not funded by that government or the taxpayers, and it is only accountable to its stakeholders<sup>[4]</sup>. Perhaps that is an acceptable answer in Canada, but shouldn't we have higher standards of accountability and transparency in this country?

We hear that extended producer responsibility leads to higher recycling rates. And yes, some countries with extended producer responsibility have higher rates than this country while others don't<sup>[5]</sup>. Yet in response to calls that the Europeans are doing better than us, we should remember, to paraphrase a former Secretary of State, that even though we may love Europe, we are not Europe. We have significant cultural, demographic, housing size and other differences from Europe. Sometimes imports work, sometimes they don't. In this

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<sup>[3]</sup> [http://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/paper-package/sdm\\_decision\\_regarding\\_sc\\_submission.pdf](http://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/paper-package/sdm_decision_regarding_sc_submission.pdf)

<sup>[4]</sup> <http://www.multimaterialbc.ca/blog/3-reasons-multi-material-bc-is-not-under-the-purview-of-the-auditor-general/>

<sup>[5]</sup> <http://www.eea.europa.eu/media/infographics/recycling-rates-in-europe-1/view>

case, an imported philosophy, which only has a partial record of success in Europe, is not likely to succeed here.

We hear that extended producer responsibility leads to better markets and creates jobs. Perhaps we should tell this to the recycling companies in British Columbia that have lost business or went out of business because they could not compete with the provincially sanctioned monopoly<sup>[6]</sup>. In fact, the European and Canadian extended producer responsibility programs are struggling with the same market dynamics as are American programs. Bad markets affect all recyclers.

Finally, assigning responsibility for recycling to a producer organization rather than to local governments would sever our industry's ability to respond to the needs of our local government partners and our residential and business customers. Successful recycling programs flourish with community engagement that encourages ongoing local programs. Statewide "one-size-fits-all" EPR programs will not meet community needs. They will result in substandard programs.

One last point with regards to our concerns with EPR. We understand that 2016 CT Senate bill# 233 as amended, if passed and signed into law, will task the DEEP to study all facets of packaging and paper; and, programs available to manage their use and after useful life in CT, including the EPR option. We believe, and understand the DEEP concurs, that before DEEP can implement any new EPR program for packaging and paper -- or any other item(s) for that matter, that new specific legislative enabling authority is first required. Said differently, we believe, and understand the DEEP concurs, that it does not currently have the authority to impose extended producer responsibility on any product without explicit, and new legislative authority. We trust DEEP will affirm this in the final waste plan update it adopts in the summer of 2016.

### **FOOD SCRAPS AND ORGANICS**

There may be great benefits from the diversion of food scraps and organics from traditional disposal as envisioned and called for in this draft update. However, the CT chapter believes that these beneficial impacts have not yet been fully studied

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<sup>[6]</sup> <http://www.timescolonist.com/news/local/new-provincial-recycling-program-killed-central-saanich-firm-says-ex-gm-1.1352859>

or tested and are therefore overstated in this draft update. There are significant challenges with food scraps and organics programs and facilities -- immediately ahead -- involving costs and other difficulties that need to be worked out and refined before DEEP asserts their likely adoption and widespread implementation like it does in this draft update.

The first reason why we believe this is because the infrastructure to collect and process food scraps and organics is not available today in CT, and its fledgling development continues to face a slew of logistical, siting, permitting and cost problems. The CT chapter has studied a number of food scraps and organics diversion programs, covering all program features including the design, financing, construction and operation. Based on what we know from these studies, we believe the development of significant new food scraps and organics management programs in CT will be much more difficult and will take much more time than the DEEP anticipates in this draft update.

Another reason why is because the DEEP calls for widespread use and growth of food scraps and organics management programs and facilities in this draft update without fully knowing whether or not the per ton management costs of these new food scraps and organic programs will be less than currently available management options. This unknown, and other unknowns about how food scraps and organics management programs and facilities will work in CT are troubling to the chapter. We believe the cost to use such programs and facilities often exceed traditional disposal costs. New, higher food scraps and organics collection and processing fees will drive up overall end of life materials management costs for many citizens, businesses and institutions in CT. We also believe that Life Cycle Analysis (LCA) should be used to compare and contrast the environmental "pros and cons" of existing CT recycling and disposal programs against those of new programs mandated by state legislation or by CT DEEP policy in this plan update. Without such specific case by case LCAs, the efficacy of the change will not be known for certain; and may in fact provide little, if any, net environmental improvement for a lot more expense.

The projected impact of food scraps and organics management in this draft update is therefore pre-mature and overstated. This is so since the infrastructure to collect and to process organics simply does not exist; and, since it will take many more years to develop; and since it may never get developed and operationalized due to performance and cost constraints. Further the DEEP

ignores the significant costs and logistical problems of alternatively managing food scraps and other organics and fails to call for the incorporation of LCAs in the development of these programs.

The draft update should encourage and monitor the efforts being made by the private and public sector to develop cost effective food scraps and organics collection and processing capacity. That said, the current draft update should scale back its expectations with regard to such food scraps and organics programs until such time there is more widespread acceptance of them and until the full costs and impacts of these programs are better known.

### **WASTE-TO-ENERGY**

On March 7, 2014, the CT Chapter of NWRA went on record with the Legislature with this statement:

*“The only real pressing statewide solid waste policy question that exists today involves the economic sustainability of the mid-Connecticut waste-to-energy (w-t-e) plant and the other w-t-e plants which operate in the state.”*

We believe those words are as applicable today as they were when originally stated 2 years ago. We are also seriously troubled since the current draft update provides no serious discussion or focus on how to maintain the future of the w-t-e disposal option for the needs of the state. CTs w-t-e plants receive and process all but a fraction of the state’s municipal solid waste. Without this option readily and robustly available to waste generators, the state and waste services marketplace will face severe disruptions in continuity and convenience of this essential environmental service.

CT demonstrated environmental leadership years ago when it chose to use modern w-t-e plants and technology for its disposal needs. Over time, for many CT specific reasons, these plants with their Best Available Control Technology (BACT) environmental requirements and production of renewable electrical energy, have proven to be good partners in meeting state disposal needs.

Recently though, since many of the original policies and program designed to foster the development and operation of these w-t-e plants have come to end, CT w-t-e facilities face new challenges if they are to remain operational and serve CT in the future. In addition to these changes, other developments like deregulation in the electricity marketplace and the abundance of domestic natural gas, have put the business model for CTs w-t-e environmental infrastructure at risk.

We believe the DEEP in this plan update should affirm the positive and primary role the state's w-t-e plants play in its solid waste management system, especially with regards to the segment of it that requires disposal. Further, we believe that the DEEP should develop policy options and pathways for this essential w-t-e environmental infrastructure as it is does for alternative technologies like food scraps and organics management and other possible new solid waste technologies that might be ushered in by projects to be undertaken by the Materials Innovation and Recycling Authority (MIRA).

Key policies that DEEP should be pursuing and advancing in this plan update regarding CTs w-t-e plants include: increasing the RPS targets for power produced at w-t-e plants; streamlining approval for innovative ash re-use and metal recovery projects; expanding use of power purchase agreements for w-t-e plant electricity; and developing other incentives that help communities and owners with the high cost of plant maintenance and equipment replacement.

In recent history one of CTs smaller w-t-e plants went offline. The loss of this 125,000 tons per year of disposal capacity did cause its fair share of problems and marketplace dislocations and disruptions. Most of these ill effects were not readily visible or felt by the general public because of good timing and an adroit industry response. As an industry we are happy to have helped CT through this speed bump, even though many of our customers and companies had to deal with the unseen impacts. That said, this was a small w-t-e facility; so the problems were of a proportional small nature and impact. If one -- or more -- of the state's other w-t-e facilities went off-line or became permanently unavailable for use, CT would face bigger, more significant problems in working through the process to find adequate new responses to the loss of this vital capacity.

DEEP needs to state clearly in this draft update the importance of CTs w-t-e industry to the state, at very least, until recycling rates increase or alternative technology is commercially available to replace them. Further DEEP needs to specifically recommend and actively pursue policies to support this important CT environmental infrastructure for sound disposal of its wastes.

### **PAY AS YOU THROW**

Pay-as-You-Throw (PAYT) programs for residential solid waste programs help in some cases to increase the diversion of materials into the recycling loop; however this is not the sole means to accomplish this important goal. The draft CMMS overstates the value and future role of PAYT for CT communities. Further, the draft update does not recognize how politically difficult it is for municipalities to adopt such programs. Communities should continue to consider the PAYT option, as well as other programs like single stream recycling, to improve the rate of recycling by their citizens. The DEEP should not be given any new or specialized authorities to force PAYT programs on CT municipalities through the adoption of this or any state waste plan or update.

Further, any efforts by the DEEP to hide the cost of recycling – or the cost of any other solid waste service -- in the price for collection and disposal of waste should not be permitted. This is not a sustainable practice and it is not fair to consumers who have the right to know the cost of the services they buy and use. The concept of “free” recycling -- and other similar end-of-product life services -- hidden in the household trash bill should be rejected in favor of promoting programs with clearly delineated policies and commensurate education, technical assistance and enforcement as appropriate.

We believe the DEEP, in this draft update, is overlooking how best to improve the state’s recycling rate. The simple answer is the DEEP should focus this update’s resources and attention on the state’ largest communities which have poor recycling rates and waste diversion programs. Focusing on these larger communities, at this time in the development of the state’s overall waste system and history, is most appropriate and will yield handsome results. Also, it would at the same time not disrupt or stigmatize the operations of the vast majority of CT

municipalities with regards to their recycling and waste operations. The majority of which are mature and working well.

## **CONSTRUCTION AND DEMOLITION (C&D) MATERIALS MANAGEMENT & RECYCLING**

A review of CTs private facilities managing construction and demolition materials and wastes shows some 90 facilities are at work today and involved in DEEP permitted activity in this space. Approximately 50 facilities hold a general permit and each one handles some or all of a wide range of recyclables, including those recovered from CT construction and demolition (C&D) projects. There are also another 40 DEEP permitted volume reduction facilities around the state. Many of these facilities focus principally on construction and demolition materials management, as well as oversized MSW (furniture), wood waste and yard wastes

These facilities serve Connecticut's municipalities, institutions, business and industry and contribute to the State's fine performance in managing C&D materials and wastes. The construction and operation of these facilities all have been privately financed and they all pay full real estate, and equipment personal property taxes to host municipalities. CTs private C&D facilities and industry have been a "win-win" proposition for all involved.

Years ago, as CT faced the closing of its poorly sited and operated landfills and its w-t-e facilities were filled with "high value – higher tip fee" municipal solid waste, private companies stepped up and served the state by developing the above referenced network of C&D facilities, as well as the attendant rolling stock of trucks and containers to collect and transport these materials, as they endeavored to divert and recover useful materials before reducing and sending the remaining materials out of state for disposal.

As these trends unfolded, the industry continued to monitor the development of technology in the C&D waste sector, and tracked on-going development of in-state and regional markets for products that could be recovered, such as wood, plastics, metal and other materials. Once it became clear that technology existed for reliable processing and recycling of C&D debris, additional private investment followed and developed new, modern, multi-million dollar C&D material recovery



systems. Many facilities, as already noted, are now operating and more will be built in the future. The effect of this is that C&D materials and related wastes will be reused, repurposed or recycled in efficient, economical and environmentally secure facilities for years to come. The recovery and recycling of other fractions of the C & D stream, including metals, cardboard, plastics, and clean rubble remain a high priority for our industry.

In this draft update the DEEP unfairly characterizes and inadequately describes our industry's work with C&D debris, materials and wastes. Further, we believe the DEEPs emphasis in the C&D sections of this update on things like pushing for more source separation of C&D materials at job sites and placing more responsibilities C&D facility operators will not be as a productive use of scarce departmental resources as possible. We believe, as we have called for many times in the past, the DEEP would better serve the interests of C&D material reuse, recycling and repurposing if they re-focused efforts to create and promote markets for the C&D materials we manage daily. New and more robust C&D material markets will help everybody divert discarded, after useful life recoverable materials -- that would otherwise become waste and be disposed. We encourage the DEEP to no longer overlook or downplay the essential role markets play in our efforts to manage after useful life materials to their highest and best use. The chapter, companies and hard working men and women of CTs recycling and waste industry encourage the DEEP though to revise this draft update to first focus its efforts to explore ways to improve markets -- and to help create new markets -- for the materials we are already routinely recovering and for others that we could recover by some planning and modest retrofitting of existing programs. We believe such improvements to the markets for these materials will yield tremendous environmental quality improvements for CT citizens, communities and businesses with far less disruption than the major changes that would be required by changing proposed in this draft of the update.

### **ABOUT US:**

The Connecticut Chapter of the National Waste and Recycling Association (NWRA) is part of a 50 year old Washington, DC based trade association of private recycling and solid waste companies that collect, handle, recycle, compost,

repurpose and dispose the discards and waste materials generated by the citizens, communities, institutions and businesses of America. Our members operate in all fifty states, and many have an active and significant presence in Connecticut's recycling and solid waste system.

The NWRA membership is comprised of small "mom and pop" haulers; and, small to medium to large privately held companies that collect and/or process recyclables, discards and wastes; and publicly traded national companies that provide integrated waste services from collection to recycling to transfer to disposal and more.

NWRA represents an industry that is dedicated to the environmentally protective and economically efficient management of recyclables, discards and wastes. And further, as private companies, we place great value on the exercise of choice, and market competition, in the delivery of these environmental services as being good for both the environment, and for the bottom line of those using these services.

In Connecticut, private recycling and waste facilities and companies are already among the state's most environmentally proactive and regulated industries. Our private companies operate under strict CT Department of Energy and Environmental Protection permitting requirements, operate the state's waste-to-energy trash combustion infrastructure, waste transfer and processing facilities, recycling facilities, compost sites, recycling and waste collection operations and related plants.

Our companies are major employers; we pay taxes and special fees to all levels of government; we invest, with private capital, in the physical infrastructure necessary to manage Connecticut recyclables, discards and wastes, as well as in the fleets of collection vehicles and related infrastructure necessary to collect and manage these discards and waste materials; and last, we also partner directly, and indirectly, with all kinds of governmental entities to see that modern, environmentally sound recycling and waste management infrastructure, that is protective of the public health and safety, exists for local government use and the use of all Connecticut citizens and businesses.

Our chapter has a vision of a sustainable society that reduces waste, recycles more and recovers value from discards to the maximum extent practicable and properly disposes the wastes that remain.

[www.wasterecycling.org](http://www.wasterecycling.org)

Contact: Steve Changaris, CT Chapter Mgr.

[schangaris@wasterecycling.org](mailto:schangaris@wasterecycling.org)

800 679 6263



April 22, 2016

Department of Energy and Environmental Protection  
Attn. Lee Sawyer  
MMCA  
79 Elm Street, Hartford, CT 06106.

Mr. Sawyer,

On behalf of the members of the Product Management Alliance (PMA), we appreciate the opportunity to express the Product Management Alliances' position on the Department of Energy and Environmental Protection's Draft Comprehensive Materials Management Strategy.

My name is Kevin Canan, and I serve as the Executive Director of the PMA. By way of introduction, the PMA is a coalition comprised of trade associations and corporations that represent a broad array of consumer products. Our mission is to support market-based extended producer responsibility (EPR) efforts, as well as voluntary incentives for increased recovery and sustainable products and package design.

PMA's members have long strived to voluntarily recover the products that they manufacture. The PMA understands and appreciates Connecticut's desire to seek ways to improve the recovery rates of goods as contemplated in the draft Comprehensive Materials Management Strategy. However, we believe that expanding current EPR programs and adding additional EPR programs for additional products, specifically the carpet industry and paper and packaging enumerated in the contemplated in the Comprehensive Materials Management Strategy report, would simply add costly and unnecessary mandates for both the state government to implement and run this program; as well as for retailers and manufacturers in Connecticut. These costs will ultimately be borne by taxpayers and consumers.

Additional EPR programs would set up a confusing and bureaucratic system of recovery for the residents of the state with similar types of products having very different end-of-life recovery schemes. In addition, these types of restrictive programs would likely to have a chilling effect on manufacturers and retailers doing business in Connecticut, and as a result business very well could be lost to neighboring states.

PMA members and businesses utilize sophisticated programs in place that continue to increase the amounts of products recovered and recycled through voluntary initiatives. Today recovery rates are at record levels, and they are continually striving to increase these numbers. The existence of these efforts illustrate that new mandates on producers are not necessary to reduce waste and increase recycling and the use of recycled content.

The members of the PMA, and the industries they represent, recognize the desire of the public and policymakers for environmentally responsible business practices. That is why our member companies are voluntarily involved in waste recovery programs, and support recycling where it

is economically and logistically feasible. Thus, we urge the DEEP and the legislature to **strongly examine voluntary, market-based recovery efforts** for increased recovery of products and oppose any further expansion of EPR in the state.

We hope to have a positive and constructive working relationship with you.

Sincerely,

A handwritten signature in blue ink, appearing to read 'KCCan', with a long horizontal flourish extending to the right.

Kevin C. Canan  
Executive Director

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the plastics industry  
trade association

April 12, 2016

via email: [DEEP.CMMS@ct.gov](mailto:DEEP.CMMS@ct.gov)

Department of Energy and Environmental Protection  
State of Connecticut  
Attn: Mr. Lee Sawyer  
MMCA  
79 Elm Street  
Hartford, CT 06106

Subject: Comments to "2016 Draft Comprehensive Materials Management Strategy"

Dear Mr. Sawyer:

SPI: The Plastics Industry Trade Association appreciates the opportunity to comment on the Department of Energy and Environmental Protection's (DEEP) "2016 Draft Comprehensive Materials Management Strategy (CMMS)". The draft plan is aimed at achieving the state's vision for 60 percent diversion of materials from disposal by 2024.

SPI is a diverse manufacturing trade association representing the entire plastics industry supply chain. Products of the plastics industry are utilized in most every sector of the economy. Examples include aerospace, technology, agriculture, automobile, construction, medical, electronics, packaging, recreation and sports, plus more. In Connecticut, the plastics and dependent industries combined employ more than 400 thousand workers. Direct payroll is \$550 million with dependent industries adding another \$20.6 billion to the state's payroll.

We thank the DEEP for soliciting input and commend you for the effort put forth in compiling this document. Following are our comments and observations.

### **Food Waste and Organics**

All of the actions called for by the CMMS are aimed directly at achieving the state's goal of 60 percent diversion from disposal by 2024 through a number of specified actions. In reviewing the 2015 Statewide Waste Characterization Study it is clear that food waste and other organics combined are the prevalent materials in the waste stream both residential and commercial. The category of generated food waste, unlike the majority of the other waste categories, has considerably increased from 2010 to 2015, whereas the majority of other waste categories have decreased during the same time period. We would recommend the Department prioritize and focus on diversion of food waste and organics in working to achieve the 60 percent diversion goal.

### **Commercial versus Residential**

The CMMS points out that the prevalence of potentially recyclable materials was found to be significantly higher in commercially generated waste than in residential waste. We would suggest looking more closely at the commercial sector to determine ways to bolster and advance waste diversion. Again, food waste and organics combined is the prevalent waste stream material.

### **Education and Outreach**

We support the recommendation of a sustained campaign of education and outreach to attempt to influence consumer behavior related to reduce, reuse and recycling practices. In using RecycleCT as a conduit to promote effective public participation, how will DEEP measure any results and outcomes in determining program effectiveness? Through what venues or target populations will these outreach efforts be directed?

### **Extended Producer Responsibility (EPR)**

The Department proposes to implement an EPR program to cover packaging and printed paper with a focus on the residential stream. Unlike DEEP, the U.S. Environmental Protection Agency defines product stewardship as a product centered approach calling on those in the product life cycle – manufacturers, retailers, users and disposers – to share responsibility for reducing the environmental impacts of products. As stated by the Department, EPR is a mandatory program which will shift financial and management responsibility, with government oversight, to product manufacturers. This proposal is in direct contrast to the findings of the state's 2015 Statewide Waste Characterization Study that do not lend support to implementation of an EPR program for packaging and printed paper.

Food waste, not packaging and printed paper, is the most significant material in the residential waste stream. Further, the study states that the incidence of recyclable paper and containers is relatively low, suggesting that the residential curbside programs that have been implemented in Connecticut have made an impact at diverting these materials from disposal. Additionally, the study's findings note that a side effect of increased recycling – observed in many other waste characterization studies that have been updated in the past three years – is that the percentage of food waste, C&D debris and other wastes is significantly higher as target recyclables are removed from the waste stream.

The Department proffers assumptive statements, credited to the Product Stewardship Institute, that EPR programs influence packaging design change. This is a goal of EPR and not fully proven. Two principal drivers of packaging design are the product itself and the consumer. Well-designed packaging meets the requirements of the product while minimizing the economic and environmental impacts of both the products and its package. A basic function of packaging is prevention of damage, loss, spoilage, contamination, tampering and theft.

Establishing an industry-financed stewardship program for the collection, management and recycling of consumer packaging and printed paper equates to another tax on business. It creates a new regulatory burden

SPI Comments to CMMS

April 12, 2016

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and unknown costs which will principally be borne by business. It ignores market-driven programs which are the most efficient means of collecting and reusing product materials. They further create inefficiencies and do not provide for any flexibility in terms of response to changing markets, while siphoning resources that could be directed towards design innovation and research and development. Therefore, we do not support the Department's recommendation to implement an EPR program for packaging and printed paper.

The Department may wish to explore the many and varied programs currently under way to divert more materials from landfills. Some of those programs include the Closed Loop Fund; the Recycling Partnership; and the W.R.A.P. program to name a few. Attached is information describing some of our efforts in material diversion.

Again, thank you for the opportunity to offer comments on the proposed draft CMMS.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jane A. Adams".

Jane A. Adams

Senior Director, State Government Affairs

Attachment