

Written Testimony by Maggie Clarke, Ph.D. at SWABs EPR hearing 2-2-22
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I'm Maggie Clarke, Ph.D., consultant, educator, scientist, and policy analyst in zero waste for over 30 years, chair of the Long Range Planning Committee and Waste Prevention and Reuse Committee, and member of the Legislative Committee of the Manhattan Solid Waste Advisory Board. I'm also a member of the National Recycling Coalition Board and its legislative committee and member of the New York State Association of Reduction, Reuse and Recycling Association's legislative committee. I'm speaking on my own behalf today.

The legislative intent for this bill only speaks to "end-of-life management". The purpose should be to minimize the environmental impact of solid waste management. This bill doesn't minimize environmental impact.

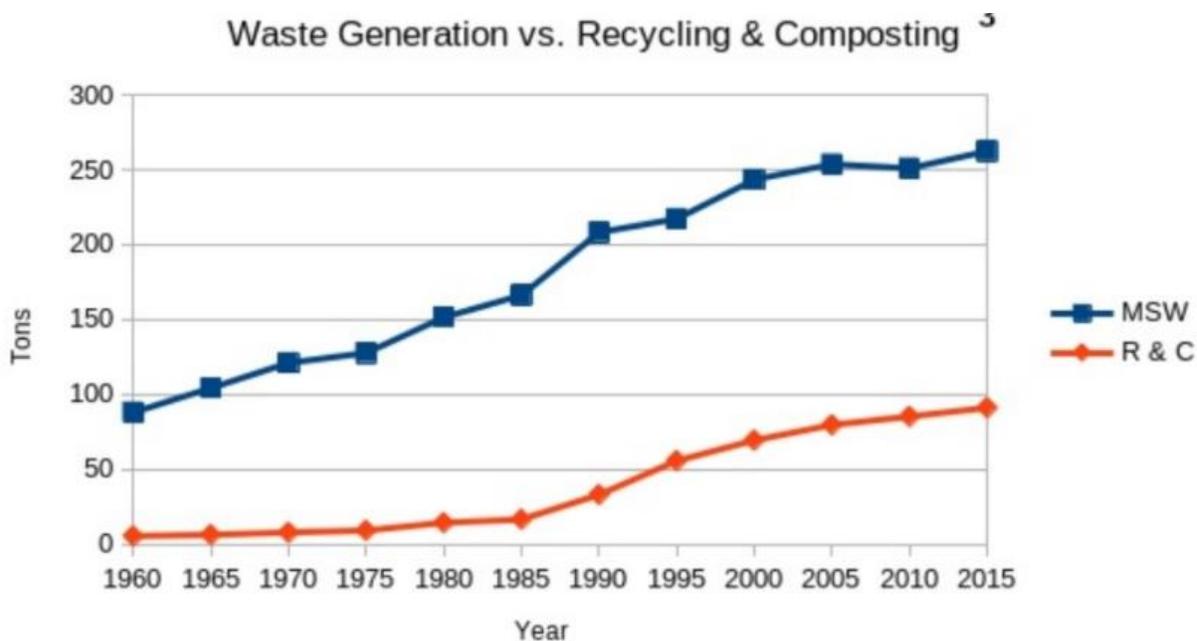
We've Lost the Original Purpose of Extended Producer Responsibility (EPR) - minimizing lifecycle impacts to the environment and climate. EPR, if used well, can be one of the cornerstones of the transition towards a circular economy. But it must pay attention to impacts from the extraction of materials, the manufacturing of packaging and goods, and transportation links. Waste prevention was the original purpose of EPR. It is a tool that has the potential to provide meaningful economic incentives for producers to better design their products so that less material is produced and more can be repurposed or recycled, while better implementing the polluter pays principle, penalizing non-circular products. EPR legislation can also provide disincentives not to design packaging and products. It is vital to understand that "for every pound a consumer throws away, there's 70 pounds of upstream waste (associated with mining, logging, refining, manufacturing, transportation and use). We've got to reduce consumption and produce our products better."¹ This shows how working on 1/70th of the problem is not the best way forward. This fact is why waste prevention was put at the very top of the solid waste management hierarchy (EPA, 1988), ahead of recycling. (Upstream is defined as the mining, logging, refining, manufacturing and transportation that occurs between these steps before consumption.) In order to embody the idea of life-cycle thinking this EPR bill should:

- Require upstream design changes of new products aiming to reduce the impacts from end-of-life management and
- Ensure downstream improvements of collection and recycling infrastructure that facilitates *high reuse* of products, components and materials.

¹ The Next Efficiency Revolution: Creating a Sustainable Materials Economy by John Young and Aron Sachs, Worldwatch Institute(1994). p. 13.

Therefore, any EPR bill should require that if a product can't be reused, repaired, rebuilt, refurbished, refinished, resold, recycled or composted, then it should be restricted, redesigned, or removed from production.

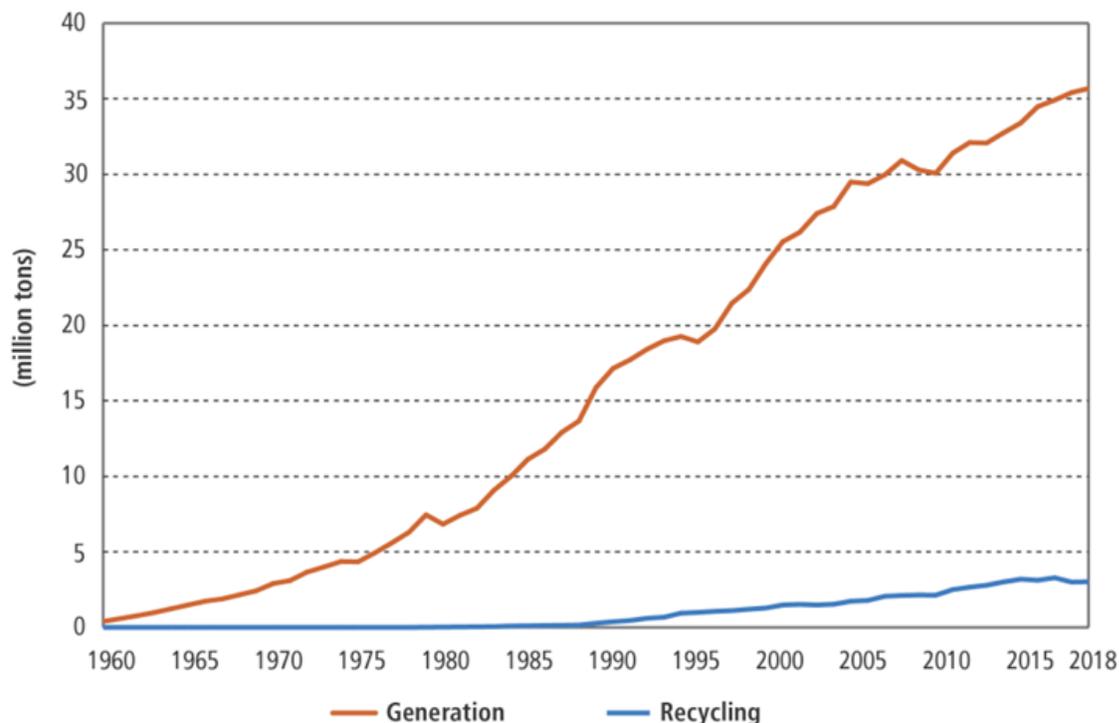
EPA waste characterization data trends show that the waste stream is growing faster than recycling can catch up. We can't recycle our way out of this.



Source: [Advancing Sustainable Materials Management 2016 & 2017 Tables and Figures. U.S. Environmental Protection Agency](#) Office of Solid Waste Nov. 2019 Graph is created from Materials Generated and from Materials Recycled and Composted tables.

It is clear that recycling and composting efforts are not closing the gap with solid waste generation. There has to be reduced consumption and more reuse. If reuse requirements are not part of this legislation, there will be little or no progress in this sector. It's even more true that with respect to plastics, generation is far outstripping recycling, as seen in the next graph from EPA. Focusing only on "end-of-life", Title 33 does will not solve this problem.

Figure 10. Plastics Generation and Recycling, 1960 to 2018



Source: USEPA [Advancing Sustainable Materials Management: 2018 Tables and Figures](#)

The unfortunate effect of EPR programs or legislation that have not required better design of products, for example, the focus on weight reduction as the only indicator, has meant that in many cases EPR has worked as an incentive for producers to increasingly develop products which are less circular, the case of single-use lightweight packaging being a very visible one. Replacement of heavier but more recyclable materials for lighter and more difficult to recycle ones has been a common practice. EPR legislation should require penalties for such practices that cause environmental impacts to be higher.

Other ways that EPR systems have lost sight of the original purpose is that they have focused on introducing and partially funding the separate collection of some waste streams (e.g. bottles). We have seen how take-back / deposit systems not only minimize the material losses and the litter of waste to the environment, but they also ensure that producers have access to their own products and materials for cleaning, refurbishment, repair or recycling.

But even though some take-back systems (e.g. beverage container redemption programs) have worked well, EPR programs have had little or no success in pushing for the better design of products or packaging (or in the case of beverage containers, return to refill systems), even though that was the original purpose of EPR.² To maximize waste prevention EPR should actively promote those upstream practices that minimize lifecycle impacts, as well as downstream materials and products recovery, minimizing leakage to the environment and losses of materials in landfills or waste-to energy incinerators.

EPR should be strengthened through the implementation of more economic instruments, such as Pay As You Throw and tax credits as a reward for good design, although administrative and informative instruments (e.g. education and enforcement) should also be improved. The preferred outcome is to build in a continuous incorporation of incentive mechanisms for industries to continuously improve their products and processes.

Outcomes of a comprehensive EPR within Zero Waste would result in significant:

- reduction in the use of resources
- better repairability or reuse of products
- weight reduction for packaging without sacrificing reusability or recyclability,
- toxicity reduction
- improvements in the dismantlability and recyclability of products.
- removal of unsustainable products.

Washington's [Senate Bill 5697](#) requires all packaging and paper products sold in Washington to be designed for reuse, recycling or composting by 2031. "If it is not ... it should no longer be produced. I am very emphatic about that," said state Sen. Mona Das, D-Kent, a sponsor of the bill, which seeks to reinvigorate Washington's struggling efforts to keep more waste products out of landfills and incinerators. Producers would make payments based on how easy it is to recycle their materials, and how much packaging they're putting into Washington. This sounds like a sensible approach for New York, but it is not clear that Title 33 would achieve this.

Title 33 only asks for a description of how a producer will reduce packaging, but this does not ensure that any particular level of reduction will happen. What is the minimum reduction of packaging that will be required? Is there enforcement or penalties? On what basis would the department deny a plan for insufficient reduction or reuse? If a manufacturer moves from a recyclable and non recyclable packaging, will there be bans

² History of EPR <https://www.mmsk.ca/residents/history-epr/>

or penalties? On what basis would the department seek to remedy a producer's insufficient progress towards reduction or reuse?

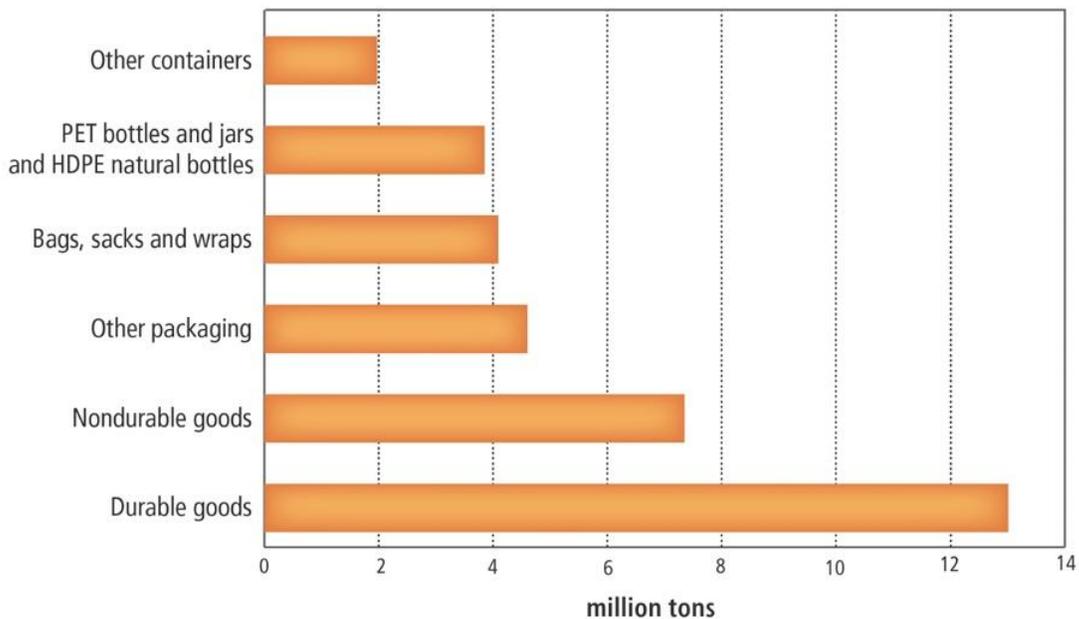
The Needs Assessment proposed in Title 33 includes a provision for measurement of “consumer education needs for recycling, reuse, and reduction of covered materials and products” which sounds very good until you realize that this can mean pretty much anything. Currently in New York City, only about half the available recyclables are collected. We spend much less than \$1/year/capita on education while more successful jurisdictions, primarily on the west coast, spend over three times that much and achieve far greater diversion rates. Will this EPR system result in quantitatively better achieving education and outreach? How will the assessment include the efficacy of different approaches to education? Will education be specially targeted at resistant populations? Will there be research to understand why certain populations are resistant and what approaches are successful? Will pilots testing different approaches be recommended and part of the needed studies? Will the effectiveness of education programs be studied annually? Will the most successful jurisdictions' education programs be continually studied and adapted? They should be.

A needs assessment should not just include educational needs but also enforcement needs and needs for pilots and characterization studies. Educational needs can be seen narrowly as simply brochures, one a year, or broadly to include frequently changing messages and tailored ones to reach different audiences, and varying approaches (e.g., print, TV, radio, billboards, schools, subway ads, and more innovative ones). We have seen with the pandemic that attempts to get people to agree to vaccination work well with those predisposed towards it but not so well with those who are resistant. Similarly, when asked to purchase more environmentally, reuse or recycle, some people are easily reached and convinced, but others require incentives, messages from respected opinion leaders or friends/family, and some require disincentives of not participating (e.g. fines). Just assuming that everyone will participate in a recycling program once they learn about it will not result in total success.

A needs assessment should also define the need for available reuse opportunities, not only assessment of available recyclables on the curbside. Title 33 is focused on recycling infrastructure needs and ignores reuse infrastructure needs. It also ignores measuring how much and what type of reuse is currently happening. It is necessary to produce studies to understand all aspects of the reuse economy with an eye to increasing it. Reuse recovery rates are not known nor are they required to be assessed in Title 33. Though the solid waste hierarchy has prioritized reduction at the top and reuse next, waste characterization studies never measure the capacity for doing either of these things. The Manhattan Solid Waste Advisory Board has testified numerous

times since 1989 before the City’s first waste characterization study that categories of measurement should include durable items, like types and subtypes of furniture, appliances, electronics, clothing, shoes and books for example. Study of nondurable categories (items designed to last less than three years, according to the US Commerce Dept.) is also not done. Packaging and container types are also not measured as such. These three major categories are in USEPA’s waste characterization reports. Characterizing the subcategories of durables and assessing the condition of the durables can give a picture of reuse capacity left at curbside. Then infrastructure, collection programs and repair facilities can be sized and designed.

Figure 9. Plastics Products Generated in MSW, 2018



Source: [USEPA 2018 Data Tables](#)

This EPA graph shows how existing and proposed policies for end-of-life management do not touch much of the plastic that is generated.

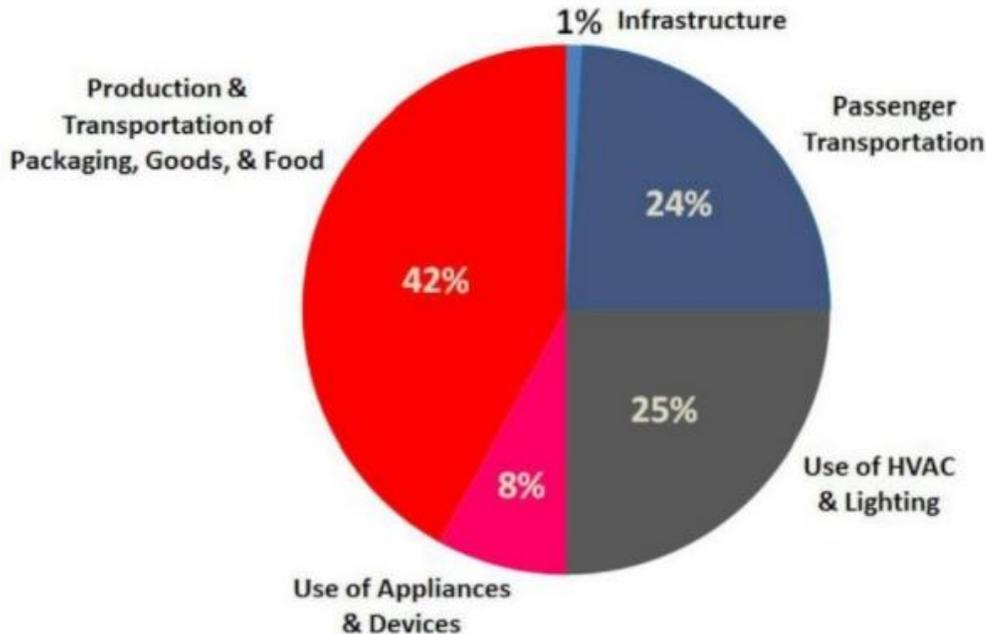
Study of nondurable and packaging categories can point out the prevalence of hard-to-recycle and toxic items. Only when we know the prevalence of each subcategory can we develop laws to ban or otherwise disincentivize marketing of non-circular packaging and products.

The needs assessment also is short-sighted when it comes to accounting for greenhouse gases. It is only looking at downstream greenhouse gas generation from recycling. New York State residents should be responsible (i.e. assessed) for creating a

demand for products and packaging that could be reduced if there were sufficient incentives (e.g. Pay As You Throw, which USEPA called the most effective single means of increasing diversion rates, and tax credits for creating packaging and products that are more circular), disincentives (e.g. fees, bans, etc), and properly designed education programs.

Title 33 could do more to impact climate change; it does little to address reducing upstream costs to the environment / carbon emissions, focusing instead on downstream impacts, despite the 70:1 ratio of impact mentioned earlier. USEPA determined over 10 years ago that half the carbon emissions to the atmosphere comes from the production, transportation, and use of consumer products, packaging and food.³ Therefore, zero waste programs address half of the climate change problem. But that's only if attention is paid to upstream environmental costs. Unfortunately almost all the attention and budget goes to passenger transportation and HVAC/buildings while zero waste solutions are ignored.

System-Based View of Greenhouse Gas Emissions¹



³ [Consumer Demand and Climate Change](#). Manhattan Solid Waste Advisory Board. 2019.

USEPA Source: [Opportunities to Reduce Greenhouse Gas Emissions through Materials & Land Management Practices, U.S. Environmental Protection Agency](#)

Office of Solid Waste & Emergency Response, September, 2009 as Re-expressed by Maggie Clarke, PhD, 2019

Title 33 does nothing to increase the number of reuse programs even though it suggests a needs assessment of barriers to these programs. Merely asking for a description of how a producer will reduce packaging does not ensure that this will happen. There need to be statutory requirements with consequences for failure. What is the minimum reduction of packaging that will be deemed satisfactory? Is there enforcement or penalties? On what basis would the department deny a plan for insufficient reduction or reuse? On what basis would the department seek to remedy a producer's insufficient progress towards reduction or reuse? If reuse were treated as thoroughly as recycling in Title 33, we could make strides towards reducing the needless disposal of reusable products.

Staffing. The department has been given a lot of oversight work to do (rightly so). Will it have the staff to do this now and in the future? Who will pay for the staff? The producers or the public?

Lessons Learned. New York State can learn lessons from the failures of EPR systems in the EU that have been less effective at meeting circular economy objectives beyond recycling, such as re-use and eco-design (Zero Waste Europe, 2015) and address these by specifying requirements, incentives, penalties, and enforcement measures in legislation. Some of the challenges faced by existing EPR arrangements in stimulating producers to change the design of their products include:

- Low cost of compliance with EPR, including end-of-life phase, relative to other business costs (Zero Waste Europe, 2015);
- Fees are unavoidable so are viewed as a tax, and therefore do not incentivize innovation (Zero Waste Europe, 2015);
- Collective PRO systems average the fees across producers, dis-incentivizing individual producers to be innovative (Zero Waste Europe, 2015) (OECD, 2014);
- Consumers are often willing to absorb the costs of EPR within the products they buy (Zero Waste Europe, 2015);
- Fees were designed to cover the costs of waste management and not to change the behavior of producers (Zero Waste Europe, 2015), for example by promoting eco-design;

- Fees encourage waste management which minimizes the costs of recycling and treatment rather than following circular economy objectives (Zero Waste Europe, 2015); and
- A focus on weight favors some products which are less compatible with circular economy objectives (Zero Waste Europe, 2017).

Additional Questions and Recommendation for NYS

Where in the bill are the incentives for designers/manufacturers to design packaging to reduce waste?

Where are the disincentives (i.e. penalties, bans, etc) for manufacturers for designing packaging that will result in more waste, including designing non-recyclable packaging?

The bill excludes those producers who generate less than \$1 million in annual gross revenue. That is quite a big loophole. Why?

Why is the government, via this legislation, giving a group of product and packaging producers control over developing and implementing this program? This would appear to embed a conflict of interest and not promote the public interest. Only by holding producers responsible for the full costs caused by their products, will the companies be incentivized to design products that are recycled or prepared for reuse more easily and at a lower cost thereby being littered less often.

If all the problems with the bill can be addressed, then EPR fees of producers need to be modulated in a way that rewards better designed products and penalizes the least sustainable ones. This modulation should reward, among other things, and depending on the product category, factors such as durability, reusability, repairability and recyclability of products, the preservation of embodied energy or the inclusion of recycled content, while penalizing those products that are unfit for repair or recycling, be it because of their color, shape, material composition, their content of hazardous substances or any other reason.

Any EPR bill should require that if a product can't be reused, repaired, rebuilt, refurbished, refinished, resold, recycled or composted, then it should be restricted, redesigned, or removed from production.

In addition to rewarding producers who design products and packaging that minimizes lifecycle impacts, minimum requirements for EPR systems should set up clear guidelines on reporting and transparency so as to ensure that data is reliable,with

penalties for producers or PROs that do not produce high accuracy reports transparently to the public.

Regarding the provision where no person may charge a consumer a point-of-sale or point-of-collection fee to recoup the costs associated with meeting the obligations under this title, what is the penalty for doing so? Who is enforcing this provision (and all the provisions) and how? Who and how much is the enforcement budget?

Regarding the Advisory Committee, there should be at least one member from a Solid Waste Advisory Board. There are four in New York City. Also, how is conflict of interest or self dealing avoided when appointing producers to the advisory committee? There should be no producers on the advisory board for this reason. And regarding recommendations to the department minimum recovery rates, does this refer only to recycling or also reuse? Reuse should be considered part of recovery. Also, in its recommendations, the advisory committee should be directed, in this legislation, to set a series of rates and dates for eventually achieving close to 100% diversion from landfill and incinerator. It is not clear why members should be required to serve for at least 3 years. If there are problems with the member, or s/he wants to leave, then what?

All producer responsibility program plans and other documents should be made public as soon as they are finalized. The public should have a comment period to provide input to the department.

Additional references that I've drawn from:

- Redesigning Producer Responsibility, Zero Waste Europe, Sept. 2015
- EPR in the EU plastics strategy and the circular economy: A focus on plastic packaging, Institute for European Environmental Policy, Dec. 19, 2017
- Extended Producer Responsibility: creating the frame for circular products, Feb 9, 2017
- Bill to ramp up recycling a top priority for green coalition in 2022 Washington state legislative session Updated Jan. 18, 2022