



**TESTIMONY
OF THE
NEW YORK PUBLIC INTEREST RESEARCH GROUP
BEFORE THE JOINT HEARING OF THE
SENATE ENVIRONMENTAL CONSERVATION & ASSEMBLY ENVIRONMENTAL
CONSERVATION COMMITTEES
REGARDING AN EXAMINATION OF EFFECTIVE LEGISLATIVE SOLUTIONS TO
REDUCE PACKAGING
October 24, 2023
Albany, N.Y.**

The New York Public Interest Research Group (NYPIRG) is a non-partisan, not-for-profit research and advocacy organization. Consumer protection, environmental preservation, public health, healthcare quality, higher education affordability, and governmental reforms are our principal areas of concern. We appreciate the opportunity to submit testimony on proposals to effectively reduce packaging waste, and toxic chemicals in packaging.

New York is facing an increasingly serious solid waste pollution problem and policies designed to reduce the amount of solid waste generated as well as stimulate recycling are important reforms that are beneficial to the state's environment and economy. New York has known for years that such policy reforms are central to its environmental goals.

In 1988, the Solid Waste Management Act¹ established in law the *preferred hierarchy of solid waste management*. The hierarchy established the following priorities to guide the programs and decisions of the New York State Department of Environmental Conservation (DEC) and other state and local agencies:

- First, to reduce the amount of solid waste generated.
- Second, to reuse material for the purpose for which it was originally intended or to recycle the material that cannot be reused.
- Third, to recover, in an environmentally acceptable manner, energy from solid waste that cannot be economically and technically reused or recycled.
- Fourth, to dispose of solid waste that is not being reused or recycled, or from which energy is not being recovered, by land burial or other methods approved by DEC.

As seen in the graphic² below, source reduction and reuse are the first step in a solid waste strategy:



¹ New York State Environmental Conservation Law §27-0106.

² U.S. EPA, <https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy>.

Recent developments in global waste policy heighten the need for the state (and the nation) to bolster solid waste reduction measures. China, which had been accepting massive amounts of the nation's waste, stopped accepting such imports in 2018, increasing the pressure on state and local governments to reinvigorate their solid waste programs.³ Municipal recycling systems have not been equipped to deal with the high amounts of waste that have flooded their systems. The state had been made aware by their own agencies that New York needed further waste diversion tactics.

Moreover, even as the state has developed its response to the rising existential threat posed by a rapidly heating planet, it has understood that its approach to solid waste needed to be reimaged.

The Climate Action Council's (CAC) report recommended comprehensive action to reduce the state's generation of solid waste citing its role in the generation of greenhouse gases. The Plan states, "GHG emissions from the waste sector represent about 12% of statewide emissions, including landfills (78%), waste combustion (7%), and wastewater treatment (15%)."⁴

Waste accounts for 12% of statewide emissions, most of which comes from landfills that will continue to release significant amounts of methane, a greenhouse gas on steroids, for the next three decades.⁵ Methane is 25 times more potent than carbon dioxide when it comes to global warming.⁶ Methane levels in the atmosphere have doubled over the last 200 years as a result of industrialization.⁷ Reducing this pollutant rapidly would have a tremendous and immediate impact on mitigating the worst effects of climate change. It's more potent than carbon dioxide, but its lifespan is shorter – only about 12 years compared to centuries.⁸ To reduce methane, the Plan requires robust composting. For other waste streams, effective recycling programs are recommended along with placing the responsibility on the producers for electronic waste and packaging. The Plan recommended the following set of ambitious – but necessary – solid waste goals based on its long-standing statute:

- *"Vision for 2030.* For solid waste management and WRRFs [water resource recovery facility], the major contributors to emissions are associated with landfill emissions, though sources are also found at WRRFs and other facilities. To reduce emissions to achieve the required 2030 GHG emission reductions, significant increased diversion from landfills as well as emissions monitoring and leak reduction will be needed. A circular economy approach to materials management is understood and employed.
- *Vision for 2050.* The Climate Act requires a more dramatic decrease in GHG emissions by 2050, achieving at least an 85% reduction (compared with 1990 levels). For solid waste and WRRFs, this necessitates a dramatic shift in the way waste is managed, to the point that landfills and combustors are only used sparingly for specific waste streams, and reduction and recycling are robust and ubiquitous. In addition, methods to monitor leaks and emissions are well developed and

³ Quinn, Megan, "National Sword kicked off a wave of MRF investments. 5 years later, tech and funding continue to advance." *Waste Dive*, Sept. 14, 2022. <https://www.wastedive.com/news/national-sword-five-years-mrf-robotics-recycling-investment/630731/>.

⁴ New York State Climate Action Council Final Scoping Plan, p.316.

⁵ New York State Climate Action Council Final Scoping Plan <https://climate.ny.gov/-/media/project/climate/files/NYS-Climate-Action-Council-Final-Scoping-Plan-2022.pdf>.

⁶ U.S. EPA, "Importance of Methane," <https://www.epa.gov/gmi/importance-methane#:~:text=Methane%20is%20more%20than%2025,dueto%20to%20human%2Drelated%20activities>.

⁷ NASA, "Methane," [https://climate.nasa.gov/vital-signs/methane/#:~:text=The%20concentration%20of%20methane%20in,\(which%20began%20in%201750\)](https://climate.nasa.gov/vital-signs/methane/#:~:text=The%20concentration%20of%20methane%20in,(which%20began%20in%201750)).

⁸ Ibid.

implemented, and those emissions are significantly reduced. The circular economy approach for materials management is fully implemented and embraced...⁹

Specifically, the CAC recommended that the state should:

- enact legislation to implement expanded deposit container programs where feasible and needed (if not covered by Extended Producer Responsibility [EPR] programs), and.¹⁰
- should enact and implement new legislation in 2023 that creates an EPR/Product Stewardship framework. Alternatively, individual legislation should be enacted targeting products with the greatest GHG impact (such as packaging and printed paper, carpet, tires, textiles, solar panels, wind turbines, batteries, appliances, especially those containing refrigerants, and mattresses).¹¹

Reduce Solid Waste GHG Emissions: Waste Reduction, Recycling and Combat Plastic Pollution Crisis

A 2022 international report found the world is beyond the toxic tipping point. This scientific study, published in the journal *Environmental Science & Technology*, found that "the total mass of plastics now exceeds the total mass of all living mammals," a clear indication that we've crossed a boundary.¹² Crucially, production of single use plastics shows no signs of slowing down and have been exponentially increasing. Since 1950, there has been a fifty-fold increase in plastic production. This number is expected to *triple* by 2050.¹³

NYPIRG strongly supports the concept of holding producers (and polluters) financially responsible for their waste and has been a longtime supporter of extended producer responsibility (EPR) policies. One of the most successful recycling and litter reduction programs in New York, the Bottle Deposit Law, is an extended producer responsibility policy.

Over 99% of plastics are sourced from fossil fuels.¹⁴ The most common source of plastic resin in the United States is natural gas. This means the more plastic society uses, the longer the fossil fuel industry is kept running. When Coca-Cola, PepsiCo, and Keurig Dr Pepper combined to pour 121 million tons of greenhouse gasses into the atmosphere, they eclipsed the entire climate footprint of Belgium.¹⁵

In addition to climate damage, plastics create direct public health problems, particularly when they inevitably degrade into small particles. Microplastics have been found to cause both allergic reactions and cell death in humans.¹⁶ Further, looking at hamsters, researchers have found that microplastics appear to

⁹ New York State Climate Action Council Final Scoping Plan, p.319, <https://climate.ny.gov/-/media/project/climate/files/NYS-Climate-Action-Council-Final-Scoping-Plan-2022.pdf> .

¹⁰ New York State Climate Action Council Final Scoping Plan, p.326.

¹¹ New York State Climate Action Council Final Scoping Plan, p.329.

¹² Environmental Science and Technology, *Outside the Safe Operating Space of the Planetary Boundary for Novel Entities*, January 18, 2022, <https://doi.org/10.1021/acs.est.1c04158>

¹³ Carrington, Damien, *Chemical pollution has passed safe limit for humanity, say scientists*, The Guardian, January 18, 2022, <https://www.theguardian.com/environment/2022/jan/18/chemical-pollution-has-passed-safe-limit-for-humanity-say-scientists>.

¹⁴ <https://www.ciel.org/wp-content/uploads/2017/09/Fueling-Plastics-Fossils-Plastics-Petrochemical-Feedstocks.pdf>, pg.1.

¹⁵ Elgin, Ben, *Big Soda's Addiction to New Plastic Jeopardizes Climate Progress*, Bloomberg, July 12, 2022.

¹⁶ Parker, Laura, *Microplastics are in our bodies. How much do they harm us?* National Geographic, April 25, 2022, <https://www.nationalgeographic.com/environment/article/microplastics-are-in-our-bodies-how-much-do-they-harm-us>

lead to blood clotting in mammals.¹⁷ Inhaling burnt plastics is a well-known cause of cancer, as many of the chemicals within plastics are made of carcinogens.¹⁸ In fact, China's much publicized decision in 2018 to stop importing solid waste, was cited as a matter of public health.¹⁹ Not that this decision stopped America from finding other poorer and developing countries to accept the nation's waste such as Bangladesh, Laos, and Ethiopia.²⁰ The world is also now at a point in which everyone can inhale nanoplastics.²¹ The science is clear that reliance on any plastics, not just single-use plastics, is a detriment to local and global human health.

NYPIRG strongly supports the passage of Extended Producer Responsibility (EPR) legislation to ensure corporations are on the hook for a "cradle-to-grave" approach to reduce and be responsible for their packaging waste. A significant contributor to the waste and plastic pollution crisis is the fact that consumer brand-owners have no financial responsibility for the solid waste management of their product packaging. They have no requirements or incentives to reduce packaging waste, create reusable products, make packaging easier to recycle, or boost market demand by using more recycled content. EPR requires companies to be financially responsible for mitigating the environmental impacts of their product packaging, through reduction, recycling and reuse.

Solid waste accounts for 12% of statewide emissions, most of which comes from landfills that will continue to release significant amounts of methane, a greenhouse gas on steroids, for the next three decades.²² Methane is 25 times more potent a greenhouse gas than carbon dioxide. Methane levels in the atmosphere have doubled over the last 200 years as a result of industrialization.²³ Reducing this pollutant rapidly would have a tremendous and immediate impact on mitigating the worst effects of climate change. It's more potent than carbon dioxide, but its lifespan is shorter – only about 12 years compared to centuries.²⁴ To reduce methane, the Plan will require robust composting. For other waste streams, effective recycling programs are recommended along with placing the responsibility on the producers for electronic waste and packaging. By 2050, landfills should be nearly non-existent.

Even after decades of curbside recycling, cities like New York City divert only 17% of garbage. Any EPR program must have a modernized bottle deposit program to incentivize recycling to improve recycling outcomes. Indeed, the Climate Scoping Plan calls for "significantly increased diversion from landfills as well as emissions monitoring and leak reduction." The Scoping Plan goes further, saying that "a circular economy approach to materials management is understood and employed." The plan also calls for an expanded bottle deposit law to meet these targets.

¹⁷ Thompson, Andres, *From Fish to Humans, A Microplastic Invasion May Be Taking a Toll*, Scientific American, September 4th, 2018. <https://www.scientificamerican.com/article/from-fish-to-humans-a-microplastic-invasion-may-be-taking-a-toll/>

¹⁸ Campanale C, Massarelli C, Savino I, Locaputo V, Uricchio VF. *A Detailed Review Study on Potential Effects of Microplastics and Additives of Concern on Human Health*, Int J Environ Res Public Health.

¹⁹ Sara Kiley Watson, *China Has Refused to Recycle The West's Plastics. What Now?*, N.P.R. June 28, 2018, <https://www.npr.org/sections/goatsandsoda/2018/06/28/623972937/china-has-refused-to-recycle-the-westsplastics-what-now>.

²⁰ Erin McCormick et. al., *Where Does Your Plastic Go? Global Investigation Reveals America's Dirty Secret*, The Guardian, June 17, 2019, <https://www.theguardian.com/us-news/2019/jun/17/recycled-plastic-american-global-crisis>.

²¹ Ibid.

²² New York Climate Action Council Final Scoping Plan <https://climate.ny.gov/-/media/project/climate/files/NYS-Climate-Action-Council-Final-Scoping-Plan-2022.pdf>.

²³ Misdary, Rosemary, *A lot more than gas stoves: A deep dive into what NY must do to meet its climate law*, Gothamist. Jan. 23, 2023. <https://gothamist.com/news/a-lot-more-than-gas-stoves-a-deep-dive-into-what-ny-must-do-to-meet-its-climate-law>.

²⁴ Ibid.

The CAC's plan is quite clear on how necessary it is to enact an EPR program with real reduction targets, saying "The State should enact and implement new legislation in 2023 that creates an EPR/product stewardship framework. Alternatively, individual legislation should be enacted targeting products with the greatest GHG impact (such as packaging and printed paper, carpet, tires, textiles, solar panels, wind turbines, batteries, appliances, especially those containing refrigerants, and mattresses)." ²⁵

The Packaging Reduction and Recycling Infrastructure Act (S.4246-A/A.5322-A) offers a significant step forward toward meeting New York's climate change goals and will have many other critical benefits:

The legislation saves tax dollars by making business pay to manage its product packaging waste: Forty percent of plastic manufactured is used for consumer packaging – much of it single-use – and very little of this is recycled.²⁶ This bill provides relief to taxpayers across the state from the financial burden of managing packaging waste through curbside recycling programs, garbage collection and disposal, and litter clean-ups – all of which are very expensive.

The Packaging Reduction and Recycling Infrastructure Act transfers the financial responsibility for managing discarded packaging from local taxpayers to the producers who profit by manufacturing the disposable packaging. It does this by requiring companies to pay fees that are used to reimburse municipalities and consumers for the cost of recycling *and* disposing of packaging material, by providing new funding for projects that reduce packaging waste and improve recycling, and by funding state agencies for managing the program and enforcing the law. Companies that design reuse and refill systems to deliver their goods will pay no fees for the packaging used in these systems under the Act. Thus, the legislation places the incentives and financial responsibility where it belongs: not on consumer-taxpayers, but on the companies that produce, market and profit from the packaging.

The legislation protects public health by eliminating and/or reducing toxic substances in packaging. 12,000 chemicals are used in the manufacture of food contact materials (FCMs) globally. FCMs are materials and products that come into contact with food, such as storage containers, factory equipment, kitchen utensils, and food packaging.²⁷ Many of these additives have never been studied, and many that *have* been studied raise public health concerns.²⁸ Toxic and endocrine disrupting substances can leach out of packaging into the food and beverages consumed: contributing to diabetes, heart disease, endocrine related cancers, obesity, and infertility—just to name a few.²⁹

The bill prohibits the most toxic substances and materials from being used in packaging, including polyvinyl chloride (PVC), PFAS ("forever chemicals"), formaldehyde, bisphenols, toluene, and heavy metals including lead, cadmium, and mercury. It also creates a Task Force to review and add toxic chemicals to the list of prohibited substances every three years. This feature of the bill is designed to protect public health: it will compel the packaging industry to adopt safer formulations for their packaging.

²⁵ New York State Climate Action Council Final Scoping Plan., <https://climate.ny.gov/-/media/project/climate/files/NYS-Climate-Action-Council-Final-Scoping-Plan-2022.pdf>.

²⁶ Parker, L., "Fast Facts About Plastic Pollution," National Geographic, <https://www.nationalgeographic.com/science/article/plastics-facts-infographics-ocean-pollution#:~:text=40%20percent%20of%20plastic%20produced,just%20once%20and%20then%20discarded.>

²⁷ "Hazardous chemicals in food packaging, *The Unwrapped*, <https://unwrappedproject.org/chemicals-in-food-packaging#:~:text=Food%20packaging%20contains%20many%20chemicals&text=Many%20of%20these%20chemicals%20are,durability%20against%20heat%20or%20sunlight.>

²⁸ Barron, F., "Chemical Additives in Food Packaging Materials: Importance for Food Processors," *Food Safety Magazine*, <https://www.food-safety.com/articles/6256-chemical-additives-in-food-packaging-materials-importance-for-food-processors.>

²⁹ Landrigan, P.J., et al, "The Minderoo-Monaco Commission on Plastics and Human Health." *Annals of Global Health*, <https://annalsofglobalhealth.org/articles/10.5334/aogh.4056.>

The legislation establishes environmental standards for packaging. This bill sets environmental standards for packaging by establishing binding reduction and recycling rates, and requirements for recyclability and recycled content, which increase over time. This bill does not allow packaging waste managed by so-called “chemical recycling,” “advanced recycling,” or “molecular recycling” facilities to count toward recycling performance targets because these facilities pose financial, public health and environmental threats.³⁰

The legislation helps protect environmental justice communities. Environmental justice communities are often saddled with landfills and incinerators. This bill requires education, outreach, and support programs to be focused on such communities. It requires that representatives of the environmental justice community be appointed to both the Advisory Council and the Toxic Packaging Task Force.

The legislation helps reduce greenhouse gas emissions. While packaging may contribute a relatively small portion of greenhouse gas emissions,³¹ curbing its impact makes sense – particularly when too much packaging is excessive or plastic. The Organization for Economic Cooperation and Development (OECD) has predicted that with “business as usual” growth patterns, global plastics production will nearly triple by 2060.³²

NYPIRG urges your support for the Packaging Reduction and Recycling Infrastructure Act (S.4246-A/A.5322-A). Thank you.

³⁰ For more information on the threats posed by chemical recycling, see:

<https://www.foodandwaterwatch.org/2023/06/16/chemical-recycling/#:~:text=This%20process%20releases%20toxic%20emissions,adds%20to%20the%20climate%20impact.>

³¹ Packaging Europe, “What role can packaging play in the reduction of carbon footprints?”

[https://packagingeurope.com/comment/what-role-can-packaging-play-in-the-reduction-of-carbon-footprints/8704.article.](https://packagingeurope.com/comment/what-role-can-packaging-play-in-the-reduction-of-carbon-footprints/8704.article)

³² Executive Summary, “Global Plastics Outlook: Policy Scenarios to 2060.” Organization for Economic Cooperation and Development (OECD), <https://www.oecd-ilibrary.org/sites/aa1edf33-en/index.html?itemId=/content/publication/aa1edf33-en#:~:text=The%20OECD's%20Global%20Plastics%20Outlook,reducing%20the%20environmental%20impacts%20of.>

[of.](https://www.oecd-ilibrary.org/sites/aa1edf33-en#:~:text=The%20OECD's%20Global%20Plastics%20Outlook,reducing%20the%20environmental%20impacts%20of.)