

Testimony for Senate Committee on Environment and Public Works  
The Circular Economy as a Concept for Creating a More Sustainable Future  
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Thank you for the opportunity to testify before this committee on this important topic. Fast moving consumer goods and packaging – plastic, paper, aluminum, and glass – have become a fixture in all of our lives. Unfortunately, as the quantity of non-durable items has grown, so have production impacts, the presence of waste, and the awareness that we must do better.

From our conversations with experts, communities, and top domestic companies, it has become clear that both the public and industry want change and that the Federal government is best positioned to set that change in motion. The nation’s solid waste management laws were enacted before disposable items became ubiquitous and before the full potential of recycling was understood, both as a key conservation tool and economic engine. Modern challenges require modern interventions.

Twenty thousand different municipalities currently govern the nation’s recycling programs, all with different requirements and performance levels.<sup>1</sup> Congress should enact legislation that could be implemented flexibly across all fifty states and as dynamics change over time. Such a nationwide system would provide industry certainty in terms of both compliance and the quality and quantity of recycled content produced each year. It would also provide clarity for the American public currently baffled by a confusing and disjointed recycling system.

We envision a world where the amount of disposable production is reduced and where the end of a product’s life is also the beginning of the next. This concept is known as the circular economy. To make it a reality, Congress should enact legislation to establish clear objectives and durable mechanisms for public-private funding, accountability, and oversight. Specifically, we are looking for a framework to prioritize reduction, refill, and reuse models and establish a system for extended producer responsibility (EPR) for all materials. EPR itself should include a national “bottle bill” or deposit return system (DRS). The national DRS element must ensure dedicated funding for purposes related to reduction, reuse, and recycling and equity for companies impacted both by DRS and other aspects of EPR. Additionally, Congress should address the potential budget impacts of a national DRS on states that already have a state level DRS in place that allows unredeemed deposits to be directed to purposes outside the scope of this issue set (i.e. to schools, roads etc). DRS provides unparalleled incentives for individuals and business to return materials to the system and, therefore, must be included in an overall package.

If we are successful going forward, we will no longer see our favorite brands littered in America’s iconic landscapes; today’s packaging will hold value rather than a momentary place in a stream of virgin material extraction; the public will have consistent access to an intuitive recycling system; and frontline communities will have clear assurances that public health and participation standards exist and are respected. A durable, profitable, green future is possible. Thank you for the opportunity to speak to it today.

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<sup>1</sup> <https://recyclingpartnership.org/wp-content/uploads/2018/05/state-of-recycling-report-Jan2017.pdf>

In my testimony, I will tell you a bit more about WWF, walk through our sense of the problem, and further outline our recommendations for a solution. On that last piece, I am pleased to be able to outline policy principles that were developed jointly by WWF and the American Beverage Association, the trade association representing America's non-alcoholic beverage industry.<sup>2</sup> These concepts are also supported by our OneSource Coalition<sup>3</sup>, including ABA and the leading beverages plus Danone, Mars, Unilever, Closed Loop Partners, the National Recycling Coalition, and many others. WWF, as an organization, supports leveraging existing legislative opportunities as a step to secure momentum.

To step back a bit, let me tell you a bit about WWF as an organization and our work on the specific issues in front of us today. For 60 years, WWF has been protecting the future of people and nature. The world's leading conservation organization, WWF works in 100 countries and is supported by more than 1 million members in the United States and close to 5 million globally. WWF's unique way of working combines global reach with a foundation in science, involves action at every level from local to global, and ensures the delivery of innovative solutions that meet the needs of both people and nature.

In 2018, the global WWF family launched the No Plastics in Nature Initiative. WWF's No Plastic in Nature Initiative works across the life cycle of plastic to reduce the amount of new plastic produced, increase the reuse of plastic already in circulation, and eliminate leakage of plastic into nature. The initiative is built on three core pillars: global governance, business engagement, and plastic smart cities. WWF recognizes that materials production and disposal challenges are global. Addressing a problem of this scale will require global change, one that harnesses public and private sector influence to secure binding international commitments and strategic deployment of dollars and technical assistance.

In the US, the centerpiece of our work has been the ReSource: Plastic activation hub. WWF launched ReSource: Plastic in 2019 with five Principal Members – Keurig Dr Pepper, McDonald's Corporation, Procter & Gamble, Starbucks, and The Coca-Cola Company – and two Thought Partners – the Ellen MacArthur Foundation and Ocean Conservancy. Since then, we have welcomed three new partners: Amcor, Colgate-Palmolive, and Kimberly-Clark and released the inaugural report, *Transparent 2020*.<sup>4</sup> This report established a baseline of plastic use among members and launched the ReSource Footprint Tracker, the main analytical tool through which corporate action and progress are measured. ReSource's second annual report, *Transparent 2021*, is scheduled to be published in December 2021. Results from the first two years and continued tracking in future years will illuminate key challenges, help companies take effective action to reduce plastic waste, and measure progress over time.

WWF has also been engaged in domestic and global policy conversations around reduction, reuse, circularity, technical assistance, and capacity building. We commend both chambers for the strong action already taken, including Senators Whitehouse, Menendez, and Sullivan for spearheading passage of both the Save our Seas Act (S. 3508) and Save our Seas 2.0 (S. 1982). It is time for Congress to take the next step. In fact, recently, almost 900,000 WWF supporters called for government action to address the impacts of virgin materials production, the shortfalls in recyclability, recycling infrastructure, and consumer access, environmental justice, and the impacts of mismanaged disposal. Thank you for your leadership in furthering this much needed dialogue.

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<sup>2</sup> <https://www.worldwildlife.org/publications/wwf-and-aba-joint-principles-for-reducing-materials-footprint-and-achieving-circularity>

<sup>3</sup> OneSource Coalition [www.onesourcecoalition.org](http://www.onesourcecoalition.org)

<sup>4</sup> Transparent 2020 <https://resource-plastic.com/pdf/Transparent2020.pdf>

The background portion of my testimony focuses on plastics. There are other direct and indirect impacts and ramifications that could be discussed related to the production and disposal of other materials and product types. These include conservation and human and labor rights challenges associated with deforestation, land conversion, and metal, sand, mineral, and ore mining, including rare earth elements.<sup>5</sup> Today, I will focus the remainder of my framing remarks specifically on plastics. This is because plastics constitute the newest and fastest growing material type in this space. They have also so clearly captured the attention of the American public, across demographics and party affiliations, and of government and industry leaders.

We have all seen the statistics around virgin plastics production, the disarray of recycling and solid waste management systems, and the amount and impact of plastic leakage into nature. Here are some of the most relevant data points.

Mass production of plastics began just six decades ago. In that time, 8.3 billion metric tons of plastic materials have been generated, with 75 % of this material or 6.3 billion metric tons becoming plastic waste.<sup>6</sup> Global plastic production is expected to more than triple by 2050, accounting for a full 20 percent of all oil consumption. Expanded production would generate 56 gigatons of greenhouse gas emissions or about 10-13 percent of the entire carbon budget.<sup>7</sup> Underserved communities are disproportionately impacted by emissions from production plants, landfills, and incinerators.

Only 34% of municipal solid waste is recycled annually in the United States and only 13 percent of plastic packaging.<sup>8</sup> Only 2 percent of plastic packaging achieves circularity.<sup>9</sup> Just 52% of homes have access to curbside recycling and the cost of disposal at a landfill remains a fraction of the cost at a recycling center. 1 in 7 homes do not have any access to the recycling system and 1 in 3 face serious challenges to access.<sup>10</sup> 11% of Americans recycle none of their plastic waste and 33% recycle a little or some, with access and uncertainty as the top reasons indicated for low return rates.<sup>11</sup>

The combination of unprecedented virgin production, limited refill and reuse opportunities, and extremely low recycling and circularity rates mean that plastics, in large quantities, end up diverted to landfills and incinerators or leaked into nature. And the problem perpetuates, as one set of virgin-

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<sup>5</sup> Rare earth elements (REEs) are critical to the function of our most commonly used technologies, such as computer hardware, cell phones, televisions, vehicles, solar panels, medical tools, military hardware, and wind turbines. However, REEs are difficult to mine and process as these elements are scattered across every continent and throughout the ocean floor but in very low concentrations and are often found mixed with other elements. These factors result in both significant conservation and labor impacts and challenges.

<sup>6</sup> "Banning single-use plastic: lessons and experiences from countries" UN Environment report (2018) <https://www.unep.org/interactive/beat-plastic-pollution/>

<sup>7</sup> "Plastic & Climate: The Hidden Costs of a Plastic Planet" Center for International Environmental Law (2019) <https://www.ciel.org/reports/plastic-health-the-hidden-costs-of-a-plastic-planet-may-2019/>

<sup>8</sup> "Advancing Sustainable Materials Management: 2018 Fact Sheet" Environmental Protection Agency (2020) [https://www.epa.gov/sites/default/files/2021-01/documents/2018\\_ff\\_fact\\_sheet\\_dec\\_2020\\_fnl\\_508.pdf](https://www.epa.gov/sites/default/files/2021-01/documents/2018_ff_fact_sheet_dec_2020_fnl_508.pdf)

<sup>9</sup> "State of Curbside Recycling Report" The Recycling Partnership (2020) [https://recyclingpartnership.org/wp-content/uploads/dlm\\_uploads/2020/02/2020-State-of-Curbside-Recycling.pdf](https://recyclingpartnership.org/wp-content/uploads/dlm_uploads/2020/02/2020-State-of-Curbside-Recycling.pdf)

<sup>10</sup> "How Americans View the Plastic Problem" World Wildlife Fund (2021) <https://www.worldwildlife.org/blogs/sustainability-works/posts/how-americans-view-the-plastic-problem#:~:text=World%20Wildlife%20Fund%20has%20been,reduce%20our%20reliance%20on%20plastic.>

<sup>11</sup> Ibid.

produced items is replaced by the next. Plastics have been found in our air, water, soil, and food.<sup>12</sup> Every year, 11 million metric tons of plastic enter the ocean.<sup>13</sup> At current rates, by 2050, waste in the oceans will weigh more than all of the finfish combined and 99% of seabirds will have ingested plastic.<sup>14</sup>

In contrast to these troublesome statistics, there is real reason for hope. We have seen increasing information about the dramatic gains in efficiency, conservation, and public health that can be achieved by shifting production and use from virgin materials to recycled content. In fact, a recent Association of Plastic Recyclers report concluded that production of recycled resins reduced total energy consumption by 79% for PET, 88% for HDPE and 88% for Polypropylene.<sup>15</sup> These results hold for energy and water consumption, smog formation, solid waste outputs, and carbon emissions.

Reduction and circularity are also good for business. The Pew Charitable Trusts estimated that the total cost of plastic leakage to the global economy is over \$2 trillion.<sup>16</sup> They also concluded that EPR systems could generate over 12 million domestic jobs and save the US government \$600 billion.<sup>17</sup>

The American public wants to get to this better place. Recent public opinion polling, commissioned by WWF, demonstrates that the public is concerned and expects the government and companies to do better.<sup>18</sup> 77% of the public believes that too many products are made of plastic and that the problem is becoming unavoidable. 86% of Americans agree we need to transition from an economy relying on virgin material and single-use products to one that leads in recycling rates. 68% of the public believes that companies that produce plastic need to help pay for recycling system upgrades. Out of a suite of proposed regulatory systems, deposit return systems, reusable bag credits, recycled content mandates, and single-use phase outs all received positive public support.<sup>19</sup>

The status quo, both in terms of production and leakage, jeopardizes conservation needs and public health outcomes. Change is possible. If pursued appropriately, it will improve conservation and health results, increase resource efficiency, and spur economic growth. The American public expects no less.

WWF hopes that today's conversation will set the stage for refinement and passage of smart policies and incentives – to emphasize reduction, reuse, and refill systems and set the stage for a circular economy. WWF and ABA have drafted joint principles that outline how US laws or regulations could reduce the overall materials footprint and achieve circularity. These principles echo the very same concepts Chairman Carper and others have elevated many times, including through comments to the

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<sup>12</sup> <https://oceanconservancy.org/trash-free-seas/plastics-in-the-ocean/> and

<https://www.iucn.org/resources/issues-briefs/marine-plastics>

<sup>13</sup> "Marine Plastics" International Union for Conservation of Nature (2018)

[https://www.iucn.org/sites/dev/files/marine\\_plastics\\_issues\\_brief\\_final\\_0.pdf](https://www.iucn.org/sites/dev/files/marine_plastics_issues_brief_final_0.pdf)

<sup>14</sup> Ibid.

<sup>15</sup> "Association of Plastic Recyclers Report: Use of Recycled Plastic Linked to Reduced Energy Consumption, Lower Greenhouse Gas Emissions" Association of Plastic Recyclers (2018)

[https://plasticsrecycling.org/images/Press\\_Releases/APR\\_LCI\\_Report\\_release\\_January2019.pdf](https://plasticsrecycling.org/images/Press_Releases/APR_LCI_Report_release_January2019.pdf)

<sup>16</sup> "Breaking the Plastic Wave: Top Findings For Preventing Plastic Pollution" PEW (2020)

<https://www.pewtrusts.org/en/research-and-analysis/articles/2020/07/23/breaking-the-plastic-wave-top-findings>

<sup>17</sup> Ibid.

<sup>18</sup> "How Americans View the Plastic Problem" World Wildlife Fund (2021)

<https://www.worldwildlife.org/blogs/sustainability-works/posts/how-americans-view-the-plastic-problem#:~:text=World%20Wildlife%20Fund%20has%20been,reduce%20our%20reliance%20on%20plastic.>

<sup>19</sup> Ibid.

EPA and across two previous hearings before this committee. The key concepts of this system, known as Extended Producer Responsibility (EPR), are phase-outs of truly unnecessary and problematic materials; public/private funding mechanisms and accountability to drive an efficient circular economy based on numeric targets for recyclability, materials recovery, and use of recycled content; and mechanisms to achieve public health and environmental justice objectives. A well-structured, nationwide deposit return system should be incorporated in that EPR model. Additionally, WWF supports US leadership globally to ensure our waste is not exported to nations least able to manage it and that sufficient resources and technical assistance are directed to high leakage areas.

The Break Free From Plastic Pollution Act (BFFPPA, S. 984), introduced on March 25<sup>th</sup> by Senator Merkley, is the high water mark for EPR as articulated above. WWF, ABA, and many others support BFFPPA concepts. WWF is hopeful that standalone EPR legislation will ultimately pass, but we also recognize the importance of seizing the moment. We hope this Chamber will make the most of moving vehicles to advance progress, particularly where Congress can move forward with a degree of certainty that the change we want to see can be achieved through that vehicle. Our current sense of relevant elements that could be enacted this way include public-private investments in infrastructure, a national deposit return system, and virgin plastic fees such as those articulated in Senator Whitehouse's REDUCE Act (S. 2645).

WWF business partners and key industry voices have made major commitments to measuring and reducing their materials footprint and using recycled content. If these commitments are to be realized, Congress must enact the necessary legislative foundation – to set the rules of the road in a way that can be implemented flexibly across all 50 states and provide certainty and consistency for industry and the public. Thank you for your leadership in moving this conversation forward. We are happy to assist in any way that we can as this dialogue continues.