September 6, 2022

***Electronic Submission***

Honorable Robin Carnahan
Administrator
U.S. General Services Administration
1899 F Street, NW
Washington, D.C. 20405

**In re: Case 2022-G517: Public Comments: Advanced Notice of Proposed Rulemaking: Single-Use Plastics and Packaging (87 FR 40476)**

Dear Administrator Carnahan,

The American Chemistry Council (ACC) appreciates the opportunity to submit the attached comments to the General Services Administration (GSA) regarding the Advanced Notice of Proposed Rulemaking: Single-Use Plastics and Packaging.

ACC and our members are deeply committed to creating a more circular economy for plastics and ending used plastic in the environment. That is why ACC and our Plastics Division members were among the first to establish ambitious, forward-thinking goals that all plastic packaging in the United States is reused, recycled, or recovered by 2040 and that all U.S. plastic packaging is recyclable or recoverable by 2030.[1]

Achieving these goals will require industry, manufacturers, brands and retailers, recyclers, and waste haulers, as well as citizens, communities, non-profits, academics, and federal, state, and local governments, to come together to support policies and programs to increase the supply of and demand for recycled materials and create the circular economy we all want.

We believe that a rule based on this ANPR would:

- Lead to the unintended consequence of increasing greenhouse gas (GHG) emissions contrary to the president's climate goals;
- Increase public costs; and
- Increase the amount of materials landfilled.

[1] "U.S. Plastics Resin Producers Set Circular Economy Goals to Recycle or Recover 100% of Plastic Packaging by 2040," Media release (American Chemistry Council, May 9, 2018), https://www.americanchemistry.com/chemistry-in-america/news-trends/press-release/2018/us-plastics-resin-producers-set-circular-economy-goals-to-recycle-or-recover-100-of-plastic-packaging-by-2040.

A better solution would be for the GSA to (1) create a purchasing preference for items with recycled plastics as well as (2) base procurement decisions on *lifecycle assessments* (LCA) to help ensure science-based climate decisions. Additionally, Congress should (1) require a 30 by '30 national recycled plastics standard, (2) create a modern regulatory system to develop a circular economy for plastics, (3) develop national recycling standards for plastics, (4) study the impact of greenhouse gas emissions from all material to guide informed policy, and (5) support an American-designed producer responsibility system.[2]

While we would not support a proposed rule reflecting the direction of the ANPR,[3] we offer these comments in support of the larger goals of reducing climate impact and waste and increasing recycled content and the circular economy.[4]

ACC would welcome the opportunity to meet with the GSA to discuss our comments in greater detail. In the interim, please feel free to contact me at +1 (202) 249-6600 or Joshua_Baca@AmericanChemistry.com or Adam S. Peer, Senior Director, Plastic Packaging & Consumer Products at +1 (202) 249-6614 or Adam_Peer@AmericanChemistry.com.

Sincerely,

Joshua Baca
Vice President, Plastics Division
American Chemistry Council

Attachments

[2] Plastic Division, "5 Actions for Sustainable Change," Industry report (Washington, D.C.: American Chemistry Council, 2021), https://www.plasticmakers.org/files/d6b3a34b9a88b1a6ee4da0a73b24562d740f80e4.pdf.
[3] ACC reserves the right to raise additional concerns.
[4] Specific responses may be found in Table 1 on page 18. In some cases, ACC does not respond directly because the ANPR is based on an incorrect assumption.

# Public Comments: Advanced Notice of Proposed Rulemaking: Single-Use Plastics and Packaging

(Case 2022-G517, 87 FR 40476)

## Introduction

The American Chemistry Council's (ACC)[5] Plastics Division[6] is pleased to submit these public comments to the U.S. General Services Administration (GSA), Office of Acquisition Policy's Advanced Notice of Proposed Rulemaking (ANPR) (87 F.R. 40476) relating to: General Services Administration Acquisition Regulation (GSAR) relating to: Single Use Plastics and Packaging (Case 2022-G517).

ACC and our members are deeply committed to creating a more circular economy for plastics and ending used plastic in the environment. That is why ACC and its Plastics Division members were among the first to establish ambitious, forward-thinking goals that all plastic packaging in the United States is reused, recycled, or recovered by 2040 and that all U.S. plastic packaging is recyclable or recoverable by 2030.[7] Achieving these goals will require industry, manufacturers, brands and retailers, recyclers, and waste haulers, as well as citizens, communities, non-profits, academics, and federal, state and local governments to come together to support policies and programs to increase the supply of and demand for recycled materials and create the circular economy we all want.

We believe that a rule based on this ANPR would:

- Lead to the unintended consequence of increasing greenhouse gas (GHG) emissions contrary to the president's climate goals;
- Increase public costs; and
- Increase the amount of materials landfilled.

A better solution would be for the GSA to (1) create a purchasing preference for items with recycled plastics as well as (2) base procurement decisions on *lifecycle assessments* (LCA) to help ensure science-based climate decisions. This is illustrated in Figure 1 on page 23. Additionally, Congress should (1) require a 30 by '30 national recycled plastics standard, (2) create a modern regulatory system to develop a circular economy for plastics, (3) develop national recycling standards for plastics, (4) study the impact of greenhouse gas emissions

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[5] ACC represents a diverse set of companies engaged in the U.S. business of chemistry, a $768 billion enterprise that is helping to solve the biggest challenges facing our country and the world. Chemistry touches 96 percent of all manufactured goods, and the use of plastics in modern automotive, building and construction, and food packaging industries is helping to create a more sustainable society

[6] The Plastics Division of the American Chemistry Council (ACC) represents leading manufacturers of plastics, as well as other companies throughout the entire plastics value chain, and focuses on advocacy initiatives that promote sustainability and contribute to a more circular economy for plastics.

[7] "U.S. Plastics Resin Producers Set Circular Economy Goals to Recycle or Recover 100% of Plastic Packaging by 2040."

from all material to guide informed policy, and (5) support an American-designed producer responsibility system.[8]

While we would not support a proposed rule in the direction of the ANPR,[9] we offer these comments in support of the larger goals of reducing climate impact and waste and increasing recycled content and the circular economy.[10]

We look forward to working constructively with the GSA and other stakeholders on a proposed rule that would achieve a more circular economy for plastics in the United States.

# Environmental Impacts

## Increased Climate Effect

The ANPR seems to mistakenly assume that alternatives to plastics are always environmentally preferable to non-plastic materials in the single-use and packaging context. Although plastic has a carbon footprint, it is mistaken to assume that alternative materials would always be more effective.[11] It is important to consider the carbon benefits of using plastics.[12] As illustrated in Figure 1 and discussed further on, we are concerned by any blanket approach that merely substitutes plastics with alternatives, without taking into account the overall environmental footprint and total lifecycle impact of the alternative materials. Taking this approach in the absence of sciened-based analysis will in turn lead to increased greenhouse gas emissions and increased landfill.

Rather than making blanket assumptions that could have unintended consequences, GSA's proposed rule should be guided by LCAs. One of the most powerful impacts of the proposed rule will be its overall impact on the environment, from a lifecycle perspective.

An LCA is a valuable tool for evaluating the environmental impacts of packaging alternatives over their lifecycle, from the extraction of raw materials to the disposal or recycling of an item.[13] When we consider the environmental impacts of packaging throughout its entire lifecycle (mining, manufacturing, transportation, use, and end-of-life), LCAs are essential to compare the environmental performance of alternative materials for different applications.[14]

The President directed that science- and evidence-based tools, such as LCAs, should guide climate-related decisions. The President has stated in his executive order "Tackling the Climate Crisis at Home and Abroad" that the government should listen to science and take

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[8] Plastic Division, "5 Actions for Sustainable Change."
[9] ACC reserves the right to raise additional concerns. *See,* Table 1 on page 18.
[10] Specific responses may be found in Table 1 on page 18. In some cases, ACC does not respond directly because the ANPR is based on an incorrect assumption.
[11] N. Voulvoulis et al., "Examining Material Evidence: The Carbon Footprint" (Imperial College London, 2020), https://www.americanchemistry.com/better-policy-regulation/plastics/resources/examining-material-evidence-the-carbon-fingerprint.
[12] Voulvoulis et al.
[13] Olivier Jolliet et al., *Environmental Life Cycle Assessment* (CRC Press, 2015), https://doi.org/10.1201/b19138.
[14] Jolliet et al.

action to address the effects of climate change.[15] Additionally, the President directed that agencies must capture the full costs of GHG emissions under the executive order "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis."[16] Calculations of this nature must be as accurate as possible and consider global damage as well. The President recognized that this facilitates sound decision-making, acknowledges the breadth of climate impacts, and supports the international leadership of the United States. ACC supports this approach.

In a recent study, plastic lowered total GHG contribution in 13 of 14 cases compared to alternatives in cases where it was used at scale.[17 & 18] The study demonstrated that in terms of both product lifecycle and use impact, GHG savings range from 10 to 90 percent. Many applications, particularly in food packaging, do not have a viable alternative in terms of performance. Moreover, plastics adoption in additional areas could contribute to decarbonization by reducing food spoilage and energy use, resulting in even lower GHG emissions.

In an analysis of 20 common food categories, including fresh and frozen meat, more than 90 percent of the products use plastic packaging.[19] Over 50 percent of products in another eight categories are packaged with plastic.[20] Plastics have a significant impact on greenhouse gas emission avoidance.[21] For example:[22]

- As a result of their lightweight properties and low energy requirements, PET bottles produce the lowest emissions compared to alternatives.
- The GHG emissions from metal cans are three times higher than those from multilayer plastic pouches.
- Use of plastic packaging for meat preservation reduces GHG emissions by 35 percent compared to butcher paper.
- The GHG emissions from reusable plastic bottles of hand soap are 15 percent lower than those from reusable glass bottles.

According to another report, on a global scale, other packaging types (fiber, glass, steel, and aluminum) emit more greenhouse gases than plastic bottles when considering the production and manufacturing of the main alternatives to plastic for a 500ml bottle.[23] Glass bottles were found to emit the most greenhouse gases among materials studied. Additionally, the report suggests that replacing all plastic bottles with glass globally would

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[15] "Exec. Order No. 14008, Tackling the Climate Crisis at Home and Abroad," 86 F.R. § 19 (2021), https://www.regulations.gov/document/EPA-HQ-OPPT-2021-0202-0012.
[16] "Exec. Order No. 13990 Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis," 86 F.R. § 14 (2021), https://www.federalregister.gov/d/2021-01765.
[17] David Feber et al., "Climate Impact of Plastics," Industry report (McKinsey & Company, July 2022), https://www.mckinsey.com/industries/chemicals/our-insights/Climate-impact-of-plastics.
[18] Note, the study included some durable applications.
[19] Feber et al., "Climate Impact of Plastics."
[20] Feber et al.
[21] Feber et al.
[22] Feber et al.
[23] Voulvoulis et al., "Examining Material Evidence: The Carbon Footprint."

result in 22 large coal-fired power plants' worth of additional carbon emissions.[24] That amount of electricity is consumed by one third of the United Kingdom.[25] It is easy to overlook plastic's positive impact because of its ubiquitous nature, and critical to ensure that GSA fully consider the impact in its proposed rule to help federal agencies reduce Scope 2 and 3 emissions as required by executive order.[26] The use of plastic also reduces food spoilage and landfill waste, both priorities of the administration.

## Increase Landfill of materials

Plastics have largely replaced glass, paper, and cardboard materials for containers and packaging due to performance efficiencies.[27] Compared to glass, metal, paper and cardboard containers and packaging, plastic containers and packaging tend to use significantly less material.[28] On average, over four times more alternative material is needed to perform the same function.[29] This means that if plastic containers and packaging are replaced by common material alternatives, it will likely lead to increased landfilling of materials.

A recent Canadian regulatory impact assessment (RIA) demonstrates this. The RIA applied to a regulation banning certain plastic items. According to the RIA, the proposed regulation is expected to increase waste generated by substitutes by 298,054 tons in the first year and by 3.2 million tons from 2023 to 2032.[30] During that same time, the regulation would prevent approximately 1.6 million tons of used plastics but would add 3.2 million tons of other materials to the waste stream.[31]

According to the U.S. Environmental Protection Agency, plastics accounted for 12.2 percent of waste in 2018.[32] During the past eight years, plastic durable goods, containers, and packaging have varied between 12.2 percent and 13.2 percent.[33] In 2018, 146.1 million tons of waste were landfilled in the United States. Food accounted for 24 percent of waste landfilled.[34]

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[24] Voulvoulis et al.
[25] Voulvoulis et al.
[26] "Exec. Order. No. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability," 86 F.R. § 236 (2021), https://www.govinfo.gov/content/pkg/FR-2021-12-13/pdf/2021-27114.pdf.
[27] Demetra A. Tsiamis, Melissa Torres, and Marco J. Castaldi, "Role of Plastics in Decoupling Municipal Solid Waste and Economic Growth in the U.S.," *Waste Management* 77 (July 2018): 147–55, https://doi.org/10.1016/j.wasman.2018.05.003.
[28] Tsiamis, Torres, and Castaldi.
[29] Richard Lord, "Plastics and Sustainability: A Valuation of Environmental Benefits, Costs, and Opportunities for Continuous Improvement" (American Chemistry Council, July 2016), https://www.plasticpackagingfacts.org/wp-content/uploads/2016/11/ACC-report-July-2016.pdf.
[30] Kenneth P Green, "Canada's Wasteful Plan to Regulate Plastic Waste," 2022, https://www.fraserinstitute.org/sites/default/files/canadas-wasteful-plan-to-regulate-plastic-waste.pdf.
[31] Green.
[32] U.S. Environmental Protection Agency, "National Overview: Facts and Figures on Materials, Wastes and Recycling," October 2, 2017, https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials.
[33] U.S. Environmental Protection Agency.
[34] U.S. Environmental Protection Agency.

Should GSA move forward with a proposed rule that is designed to categorically minimize all "single use" plastic packaging, landfilling is likely to increase rather than decrease due to landfilling of alternatives and an increase in food waste discussed further below. Federal agencies are unlikely to achieve the President's goal[35] of reducing waste and diverting at least 50 percent of non-hazardous solid waste from landfills should GSA move forward consistent with the direction of the ANPR. The ANPR would also make the President's goal of reducing food waste more difficult to achieve.[36]

## Increase Food Waste

Nearly a third of all food produced worldwide for human consumption never reaches people, according to the United Nations.[37] This not only represents a missed opportunity to increase food security, but also wastes the natural resources needed to grow, process, package, and transport food. Food waste makes up 24 percent of landfilled material.[38] This results in enormous amounts of methane. The global warming potential of methane is 84 to 86 times greater than that of carbon.[39] As a country, food waste would rank third in GHG emissions.[40] We support the President's efforts[41] to reduce food waste as well as highlight the social cost of methane.[42]

Modern food systems rely on plastic to protect and preserve food during transport from farm through to the consumer. Food spoilage would be much higher without plastics. Food spoilage is greatly reduced by the widespread availability of *modified atmosphere packaging* (MAP).[43] In MAP packaging, a perishable product is packed in an atmosphere containing different elements from air, which slow the spoilage process.[44]

For example, plastic packaging has been shown to increase the shelf life of:

- Cucumbers from 3 to 14 days[45]

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[35] Exec. Order. No. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.
[36] Exec. Order. No. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.
[37] Food & Agriculture Organization, "Food Wastage Footprint & Climate Change," Fact sheet (United Nations, November 2015), https://www.fao.org/3/bb144e/bb144e.pdf.
[38] U.S. Environmental Protection Agency, "National Overview: Facts and Figures on Materials, Wastes and Recycling."
[39] International Society of Professional Sustainability Professionals, *ISSP-SA Study Guide*, 1st Ed. (Portland, OR, 2016).
[40] Food & Agriculture Organization, "Food Wastage Footprint & Climate Change."
[41] Exec. Order. No. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.
[42] Exec. Order No. 13990 Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis.
[43] Michael Mullan, "Science and Technology of Modified Atmosphere Packaging," Dairy Science, January 2011, https://www.dairyscience.info/index.php/packaging/117-modified-atmosphere-packaging.html.
[44] Mullan.
[45] Advisory Committee on Packaging, "Packaging in Perspective," Industry report (Packaging Federation, October 2008), https://www.thefactsabout.co.uk/file.php?fileid=28.

- Lettuce from 2 – 4 to 14 days[46]
- Fresh red meat from 2 – 3 to 21 days[47]
- Fresh pasta from 3 to 60 days[48]
- Cheese from 7 to 180 days.[49]

The benefits of plastic packaging include ease of opening and resealing, which extends food shelf life and gives convenience to people.[50] While MAP has been used for food storage for more than a century, advances in polymer science have made it possible to apply this knowledge to modern food technology with the introduction of plastic films that are suitable for food storage.[51] ACC believes that a proposed rule that focuses solely on diversion of ”single use” plastics packaging will also increase public costs in addition to its negative environmental impacts.

Evidence-based public policy should guide GSA decision making. Resources, manufacturing, and transportation are required for the creation, use, recycling, or disposal of any item. An item's total environmental impact, as well as societal and economic factors, should be considered by decision makers. The same should be done for plastic alternatives and the externalities caused by alternatives.

## Increased Public Costs

Along with environmental costs, the ANPR implies an approach that, if adopted in the proposed rule, would have a negative fiscal impact. Generally, plastic alternatives are more expensive than plastic to purchase and transport due to increased weight. It is unclear how this increase in cost will be budgeted. Additionally, the proposed rule could adversely affect small businesses doing business with the federal government. It is difficult to properly estimate the impact of such a proposed rule without further information about what GSA envisions, but Virginia's attempt to eliminate single use plastic procurement offers insight.

The prior governor issued an executive order that would have prohibited state government agencies and universities from using “single-use” plastic products in part to "reduce [the] amount of solid waste going to landfills."[52]

A limited analysis of state expenditures for the Virginia executive order concluded it would have nearly doubled the costs of foodservice products for state agencies.[53] In that analysis,

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[46] Todd Bukowski and Michael Richmond, “A Holistic View of the Role of Flexible Packaging in a Sustainable World,” Industry report (Flexible Packaging Association, April 9, 2018), https://perfectpackaging.org/wp-content/uploads/2018/09/FPA-Holistic-View-of-Sustainable-Packaging.pdf.
[47] Bukowski and Richmond.
[48] Bukowski and Richmond.
[49] Bukowski and Richmond.
[50] Bukowski and Richmond.
[51] B. Ooraikul and M. E. Stiles, eds., *Modified Atmosphere Packaging Of Food* (Boston, MA: Springer US, 1995), https://doi.org/10.1007/978-1-4615-2117-4.
[52] “Exec. Order No. 77,” Vol. 37, Iss. 17 Va. Reg. Regs. § (2021), http://register.dls.virginia.gov/vol37/iss17/v37i17.pdf.
[53] MB Public Affairs, Inc., “Initial Comments on Virginia Executive Order Number 77 (2021),” April 4, 2021.

it found in Virginia that about half of the food services were provided by the Virginia Department of Education for school lunches, breakfasts, summer meals, and other nutrition programs. Additionally, costs would have increased for food services provided by the criminal justice system, higher education, mental health, senior services, vocational rehabilitation, and services for the visually impaired. That analysis also found that the Virginia nutrition expenditures were $13.4 million in expanded polystyrene foam and rigid plastics disposable foodservice purchases, which would have increased 75 to 118 percent under the Virginia ban, or $10.1 million to $15.8 million. Clamshells, beverage and portion cups, lids, containers, dinnerware (plates and bowls), food trays, and serving trays and carriers were included in these estimates. Estimates do not include straws, utensils, or trays for meat, poultry, fish, or eggs or other items that the ANPR could affect.

Vendors of food to Virginia would have faced higher food service costs. According to the same analysis, vendors and concessioners serving government agencies, higher education institutions, public safety agencies, and prison systems would have needed to find new suppliers and increase their operational expenditures.[54] Profit margins are generally low in food service operations. According to the Restaurant Association's Restaurant Operations Reports, 3 percent of profits come from full-service restaurants and 6 percent from limited-service restaurants. A full-service restaurant's disposable plastic food service accounts for 0.3 percent of revenues, a fast-casual restaurant's 0.6 percent, a quick-service restaurant's 1.3 percent, and a coffee shop's 2.3 percent. A forced shift to specific foodservice products could consume from 5 percent to nearly 40 percent of business profits at a 6 percent operating profit margin.

A study in Maryland estimated a more restrictive statewide prohibition on plastic products would result in an additional $34.9 million annually to replace the restricted products.[55] That for every $1 now spent on expanded polystyrene foodservice products, replacement alternatives on average would costs $1.85.[56]

Virginia has since rescinded this order in favor of recycling and other steps to create a more circular economy.[57] ACC suggests a similar approach discussed further in our comments.

## Legal Authority

ACC also questions whether and to what extent the GSA's consideration of broad new purchasing mandates or prohibitions relating to plastic as a material is consistent with existing statutory authority. The GSA's (and the President's) authority to formulate entirely new federal policies to drive government procurement is not unfettered.

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[54] MB Public Affairs, Inc.

[55] MB Public Affairs, Inc., "Fiscal Impacts of Prohibiting Expanded Polystyrene Food Service Products in Maryland: SB 186 & HB 229," Industry report, 2017, https://www.plasticfoodservicefacts.com/wp-content/uploads/2017/10/Maryland-2017-fiscal-impact-study-of-SB-186-and-HB-229.pdf.

[56] MB Public Affairs, Inc.

[57] "Exec. Order No. 17 Recognizing the Value of Recycling and Waste Reduction," Pub. L. No. E.O. 17 (2022), https://www.governor.virginia.gov/media/governorvirginiagov/governor-of-virginia/pdf/eo/EO-17-Recognizing-The-Value-of-Recycling-and-Waste-Reduction.pdf.

We are not aware of any existing statutory authority that directs or would support a federal procurement policy to disapprove or otherwise require substitutes for plastic packaging, particularly considering its comparative high-performance functionality and low-cost relative to competing materials.

Indeed, courts have held that the President's exercise of general authority under the Procurement Act requires that procurement policies have a "sufficiently close nexus" to the statutory objectives of promoting "economical" and "efficient" government purchasing. Even a broad and elastic interpretation of that authority would have difficulty justifying a new procurement rule that, for example, sought to generally phase out "single-use" plastic packaging from federal contracts. If GSA proceeds to the proposal of a rule regarding plastic procurement, therefore, it will be important for GSA to clearly and carefully identify the sources of statutory authority for the policies and measures that it proposes to adopt.

## Alternative Policy

While ACC does not support the ANPR's "reducing single-use plastics" approach, ACC does support the President's goals of using federal procurement policy to (1) help address climate change,[58] and (2) reduce waste, support recycled content markets, and circular economy approaches.[59] Rather than the current approach, ACC urges the GSA to (1) base procurement decisions on a total lifecycle analysis to ensure science-based decisions, and (2) to create a purchasing preference for items containing recycled plastics. Additionally, Congress should (1) create a modern regulatory system to develop a circular economy for plastics, (2) develop national recycling standards for plastics, and (3) support an American-designed producer responsibility system.

### GSA Action

#### Incent Recycled Content

There is unprecedented momentum globally for developing a circular economy that can benefit society and the environment. ACC believes that federal procurement policies could help to develop a means for valuable and highly efficient plastic material to be reused again and again rather than treated as waste. This will also help enabling a more circular economy for plastics, and (in contrast to a generally applicable phase out of plastic packaging as such) would likely contribute to economical and efficient government procurement, consistent with the Procurement Act. In addition, the federal government already has a statutory mandate to establish and implement recycled content mandates for federally purchased goods, through the Resource Conservation and Recovery Act (42 U.S.C. 6962), which EPA currently administers through its Comprehensive Procurement Guideline Program.

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[58] Exec. Order No. 14008, Tackling the Climate Crisis at Home and Abroad.
[59] Exec. Order. No. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.

The GSA could enhance the circularity of plastics by working with EPA to establish a strong purchasing preference that encourages procurement of products made from recycled plastic. For example:

- Create policies that give recycled plastics containing products purchasing preference
- Create resources that educate and equip purchasing officers to increase recycled plastics procurement and recycling
- Give greater employee recognition for increasing agency procurement of recycled plastics and recycling.

Procurement policy can help increase domestic demand for recycled plastics. Increasing purchasing of plastics with recycled content promotes the use of recycled content in manufacturing new products. The net effect is supporting the growth of green manufacturing and green jobs.

Compostable plastics play an important role in creating a circular economy. GSA should consider including compostable plastics in procurement policy. For example, creating procurement preferences that recognize the unique value and nature compostables contribute to circularity.

For example, as introduced, legislation in Virginia would have required agencies to give preference to materials containing recycled content so long as those materials offer a cost competitive advantage.[60] As enacted, the state must identify recycled content in procured plastic materials and may use the information to award a bid.

### LCA Guided Decision-making

As previously stated, it is erroneous to assume that plastic alternatives will always perform better. The total carbon benefits of plastics must be considered. LCAs should guide GSA decision making.[61]

Several factors influence the LCA results, including shipping distance and method of transportation, inputs in the manufacturing process package design, how a product is used and disposed.[62] Consideration should also be given to the full life cycle of the material.[63] Waste management routes used for the end-of-life treatment of packaging are also shown to be critical to understanding variations in LCA results.[64]

Environmental indicators strongly suggest that recycling outperforms virgin production.[65] Recycling plastics saves between 30 and 80 percent of the carbon emissions produced during virgin plastic processing and manufacturing.[66] It is for this and other reasons that GSA should incentivize the use of recycled plastics. This is discussed further below.

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[60] Chris S. Runion and Alfonso H. Lopez, "Recycled Materials Advantage Program," Pub. L. No. Ch. 781, H. 1287 (2022), https://lis.virginia.gov/cgi-bin/legp604.exe?ses=221&typ=bil&val=hb1287.
[61] Voulvoulis et al., "Examining Material Evidence: The Carbon Footprint."
[62] Voulvoulis et al.
[63] Voulvoulis et al.
[64] Voulvoulis et al.
[65] Voulvoulis et al.
[66] Voulvoulis et al.

## Congressional Action

### Require a 30 by '30 National Recycled Plastics Standard

To drive a consistent national approach to recycling and encourage the development of efficient recycling systems, Congress should implement a national standard, requiring 30 percent recycled plastic in plastic packaging by 2030.

According to the U.S. EPA's 2018 "Advancing Sustainable Materials Management" report, only 9 percent or ~6 billion pounds of all plastics generated are currently collected for recycling. In order to achieve the ambitious goal of 30 percent recycled plastic in all plastic packaging by 2030, it is estimated that 13 billion pounds of recycled plastic material will need to be produced every year according to an analysis conducted by the Independent Commodity Intelligence Service (ICIS).[67] This is significantly more than the amount of plastic currently collected for recycling. To bridge this gap and meet the 2030 goal, more households will need access to recycling collection systems and significant enhancements will need to be made to sorting systems as well as recycling infrastructure.

Mechanical recycling will need to continue to expand and new advanced recycling facilities will need to be built for America to improve its recycling rate and increase the amount of recycled plastic in packaging. ACC is committed to doing their part to address this challenge. The industry has already announced many projects and initiatives to expand advanced recycling capacity; however, more work is still required particularly in collection and sorting to ensure these projects get the post-use plastics they need to be successful. Rapidly scaling advanced recycling capacity will be essential to meet the target particularly for food, medical and pharmaceutical grade packaging since advanced recycling produces the virgin equivalent plastics these applications require. Supportive policies described below to create a modern regulatory framework, national standards for plastics recycling and sustainable financing for access and collection will greatly contribute to the achievement of this goal.

### Create a Modern Regulatory System to Develop a Circular Economy for Plastics

To create a circular economy for plastics, it is critical to better harmonize the nation's mechanical and advanced recycling efforts with existing state and international efforts, which will help spur development of new recycling technologies and capacity. That is why Congress should:

- Acknowledge the role of advanced recycling in creating a circular economy for plastic packaging.
- Define advanced recycling as a manufacturing process and distinguishing it from solid waste disposal.
- Recognize the ability of auditable third-party certification systems to verify production of recycled plastics by applying mass balance attribution principles.

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[67] Prashanth Sabbineni, James Ray, and Paula Learnini, "INSIGHT: How the US Can Achieve High Plastic Recycling Rates," *ICIS Explore* (blog), July 6, 2021, https://www.icis.com/explore/resources/news/2021/07/06/10660235/insight-how-the-us-can-achieve-high-plastic-recycling-rates.

Thirty U.S. states still have outdated policies that could regulate advanced recycling as "waste disposal" rather than manufacturing. Doing so sends entrepreneurs down the wrong regulatory pathway for siting a facility, making it more difficult for companies to make investments and deploy advanced recycling technologies. These technologies are essential for companies that manufacture and sell consumer commodities, food and beverages to reach the recommended 30% by '30 recycled plastics standard proposed in this document.

To date, 20 U.S. states have enacted legislation to create a more modernized regulatory framework that paves the way for states to more effectively regulate these facilities as manufacturing operations while simultaneously driving more investment into advanced recycling facilities that transform hard-to-recycle plastics into new plastics and other high-value materials and products.

### Develop National Recycling Standards for Plastics

National recycling standards for plastics are needed to support a circular economy and help achieve the EPA's goal to increase the recycling rate to 50 percent by 2030. Current localized differences in recycling practices and materials management creates confusion for consumers and inefficient markets for recycled plastics. That committee should address:

To help overcome the inconsistencies among the more than 9,000 recycling jurisdictions, Congress should empower the EPA and the DOE to bring together the plastics value chain and municipalities to develop a set of national plastics recycling standards. A National Plastics Recycling Standards Advisory Committee. That committee should address:

- Minimum household access standards to optimize the ability of Americans to recycle.
- Minimum standards and best practices for consumer outreach, education and other activities to increase the national recycling rate for all materials.
- Minimum infrastructure capacity standards to ensure jurisdictions can handle common materials and adjust to new waste streams, including the development of federal grant programs to assist with equitable access for all communities.
- Standards for municipal, state and federal government and industry data collection, as well as metrics and reporting for reuse, recycling, composting, recovery and disposal to help the EPA measure the national recycling rate and report against the National Recycling Goal.
- Minimum processing requirements to increase the recycling of post-use plastics.
- The basic specifications needed for advanced recycling feedstocks to inform consistent sorting and processing standards.
- Standards and data collection procedures to determine the annual supply of post-use plastics available for advanced recycling feedstocks.

Based on the advice and consultation with the committee and other experts, the EPA and the DOE will develop and implement the standards. As a large institution, the GSA could play an important role in implementing the standards this committee suggests at federal installations.

### Study the Impact of Greenhouse Gas Emissions from all Material to Guide Informed Policy

Public policy, especially on health, climate change and the environment, must be developed based on data and science, not ideology. To guide Congress in its development of future public policy on climate and material use, the National Academy of Sciences (NAS) should conduct a study on the comparative benefits, resource use, resource efficiency and carbon impact across the full life cycle of materials, such as plastics, steel, aluminum, glass, textiles, wood and paper. The study should cover raw material extraction, production, transportation, packaging, use, disposal and all methods of materials recovery.

These findings should inform Congress, the EPA, the DOE and other agencies across the federal government to further guide public policy on materials use and climate change. We believe the study results will help inform sound, science-based decision making. Federal policies should consider materials' life cycle impacts, as well as contributions to optimizing resources, conserving energy, preserving material and food and reducing greenhouse gas emissions. The study will leverage NAS expertise and support its mission "to provide independent, objective analysis and advice to the nation and conduct other activities to solve complex problems and inform public policy decisions."

### Establish an American-Designed Producer Responsibility System

In many other parts of the world, producer responsibility systems that are financed and directed by the private sector have helped support recycling access and collection. These systems help generate a consistent supply of quality post-use materials for recycling. Supply side policies such as this will be required to develop the infrastructure to collect and process greater volumes of post-use plastics and other materials.

ACC supports an American-designed producer responsibility system for consumer packaging that strengthens environmental protection and is dedicated to helping fund infrastructure development. By fostering innovation and stimulating a competitive marketplace, it will help implement critical components of a circular system. And it is consistent with our Guiding Principles.[68]

An American-designed producer responsibility system, prioritized to modernize and expand access, collection, and consumer education, would help provide critical funding dedicated to developing a more circular economy for consumer packaging. In addition, implementation of clear national recycling standards that embrace all economic and environmentally sustainable forms of advanced and mechanical recycling will be a critical enabler of any producer responsibility system. A well-designed program and clear national standards should provide the right incentives and disincentives to prevent litter, discourage landfilling and encourage recycling aligned with the EPA Waste Management Hierarchy.

## Conclusion

Choosing LCA-guided decision-making and incenting recycled plastics procurement are better ways to foster a more circular economy. Such policies will help reduce the

[68] Plastic Division, "5 Actions for Sustainable Change."

consumption of finite resources and the production of waste and can help mitigate greenhouse gas emissions.

Plastics companies are working to drive growth of this circular economy, but smart policies are needed to accelerate progress. Creating a circular economy for plastics will help our nation:

- Reduce the amount of used plastics going to landfills, incinerators, and oceans;
- Drive actions to combat climate change;
- Improve recycling rates;
- Conserve natural resources;
- Develop a more robust and competitive recycling market; and
- Support and increase domestic jobs.

Plastics contribute immensely to sustainability and play a central role in combating climate change. Again, thank you for allowing us to submit these comments for consideration.

**(End)**

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**Table 1**

*Responses to GSA Posed Questions*

| GSA Question | ACC Response |
|---|---|
| *Part III. Request for public feedback* | |
| 1. What is your role in your product's supply chain? Are you a manufacturer, distributor, reseller, or other (comments are encouraged from any impacted parties including local municipalities and economically and/or disadvantaged communities)? | The American Chemistry Council (ACC) is a membership-based trade association. The Plastics Division of ACC represents the leading manufacturers of plastics and other companies throughout the entire plastics value chain. (*See,* Footnotes 5 and 6 above.) |
| 2. Does your company have control over the methodology in which your product is packaged for shipment? | Not applicable. |
| 3. What are the differences between a paper based, aluminum based, or compostable packaging and a single-use plastic based packaging? | See responses to (a) and (b) below. |
| a. What are the performance differences? | Generally, use of plastic in products and packaging results in decreased GHG emissions than common plastic alternatives. (*See,* Environmental Impacts on page 4). |
| b. What are the cost differences? | Generally, plastic packaging costs less than plastic alternatives. (*See,* Increased Public Costs on page 8) |
| 4. Does your company have experience using environmentally preferable packaging? | GSA decision-making should be guided by life cycle assessments. (*See,* Environmental Impacts on page 4) and<br><br>GSA should not presume that plastic alternatives are always environmentally preferable. (*See,* Environmental Impacts on page 4). |
| a. If an environmentally preferable option was utilized, what benefits did your company experience from such a change? | |
| b. What is the relationship between your packaging and your product branding? | |
| c. Will packaging be considered as part of your company's climate financial disclosure, if applicable? | |
| 5. What is the best way for GSA to aid its contractors in moving to environmentally preferable packing and packaging? How quickly should it move? | |
| 6. Are there any market, regulatory, statutory or cost barriers to selecting environmentally preferable packaging such | Question 6 to 9 assumes that plastic alternatives are always environmentally |

| GSA Question | ACC Response |
|---|---|
| as paper based or biodegradable packaging?<br><br>If yes, please specify what the barrier is and what is creating the barrier (i.e., the product's casing or the shipment packaging). | preferable. This is not the case. (*See,* Environmental Impacts on page 4).<br><br>Instead, GSA decision-making should be guided by life cycle assessments. (*See,* Environmental Impacts on page 4 and LCA Guided Decision-making on page 11.) |
| 7. What should be considered when developing a timeline to implement regulatory changes in reducing single use plastic as either the primary product, or as the packaging material? | In addition to LCA guided decision-making, GSA should also consider incenting recycled plastics content procurement. (*See,* Incent Recycled Content on page 10.) |
| 8. Which, if any, single use plastic items GSA should choose not to contract for through its federal supply schedules? Are there exceptions GSA should make to ensure no harm to customer agency missions? | |
| 9. How could compliance with reduced or eliminated plastic content be verified? | |
| a. How can GSA and industry take advantage of innovative technologies or business practices to improve accuracy of verification while minimizing the administrative burden on companies? | |
| b. Are there private sector standards, ecolabels, and/or certifications your company is using to meet environmentally preferred packaging goals? | |
| *IV Request for economic data and consumer research* | |
| 1. What will the estimated cost be to change, reduce, or eliminate single-use plastic from your product lines? | Questions 1 to 4 assumes that plastic alternatives will cost less. This is not likely the case. (*See,* Increased Public Costs on page 8). |
| 2. What will the estimated costs be to change, reduce, or eliminate single-use plastic packaging? | |
| 3. Will a change from single-use plastic packaging result in a reduced cost in freight? | |
| 4. What reporting or monitoring standards, if any, exist to track the use of more environmentally preferable packaging material? | GSA decision-making should be guided by life cycle assessments. (*See,* LCA Guided Decision-making on page 11.) |

| GSA Question | ACC Response |
|---|---|
| 5. What is the liability risk of any of the purchased goods being damaged if packaging is reduced or changed? | GSA decision-making should be guided by life cycle assessments. (*See,* Environmental Impacts on page 4 and LCA Guided Decision-making on page 11.) A properly constructed LCA will also consider product loss. |
| 6. What other identifiable risks are posed to industry, the government, and overall economy if packaging is reduced or changed? | In these comments, ACC has raised environmental, public costs, and scope concerns. ACC reserves the right to raise further concerns. (*See,* Introduction on page 3.)<br><br>Additionally, GSA should consider the topics of the ANPR through a framework such as the triple bottom line (TBL).[69] When calculating the TBL, multiple measures and variables should be included.[70] |

[69] John Elkington, *Cannibals with Forks: The Triple Bottom Line of 21st Century Business* (Oxford, U.K.: Capstone, 1999).
[70] Timothy F. Slaper and Tanya J. Hall, "The Triple Bottom Line: What Is It and How Does It Work?," *Indiana Business Review* 86, no. 1 (2011): 4–8.

**Table 2**

*Selected Presidential Polices, Effect of ANPR, and ACC Suggestions*

| Executive Order | ANPR | ACC Suggestion |
|---|---|---|
| **Procurement.** The national climate change resilience strategies include federal procurement.[71] GSA should prioritize climate action in procurement.[72] | The ANPR would likely lead to reducing plastic procurement and lead to (1) alternatives with a higher GHG emissions, and (2) increased food waste resulting in increased methane emissions all at increased costs. | **LCA based decisions.** Base procurement decisions based on lifecycle analysis will help ensure science-based climate decisions. |
| **Federal GHG Reduction.** Scope 1, 2, and 3 greenhouse gas emissions must be reduced by federal agencies.[73] | | |
| **Science-driven decision-making.** Agency decision making must be guided by the full costs of greenhouse gas emissions.[74] This recognizes the breadth of climate impacts and includes the social cost of methane.[75] Climate decisions should be driven by science.[76] | At this stage, the ANPR seems to assume that plastics are never environmentally preferable. This is not supported by the evidence. | |
| **Circular economy.** Federal agencies must (1) minimize waste, (2) support markets for recycled products, (3) promote a circular economy,[77] and (4) divert at least 50 percent of | The ANPR would like lead to (1) increased waste because alternatives tend to weigh more, (2) no additional support for recycled content, (3) a "procurement ban" is not consistent with a circular | **Recycled plastics preference.** Create a purchasing preference for items containing recycled plastics. This will help: (1) reduce landfilling pressure, (2) create a market for |

[71] Exec. Order. No. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.
[72] Exec. Order No. 14008, Tackling the Climate Crisis at Home and Abroad.
[73] Exec. Order. No. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability; Exec. Order No. 13990 Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis.
[74] Exec. Order No. 13990 Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis.
[75] Exec. Order No. 13990 Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis.
[76] Exec. Order No. 14008, Tackling the Climate Crisis at Home and Abroad; Exec. Order No. 13990 Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis.
[77] "Save Our Seas 2.0 Act" Sec 2.: *"The term "circular economy" means an economy that uses a systems-focused approach and involves industrial processes and economic activities that(A) are restorative or regenerative by design; (B) enable resources used in such processes and activities to maintain their highest values for as long as possible; and (C) aim for the elimination of waste through the superior design of materials, products, and systems (including business models)."*

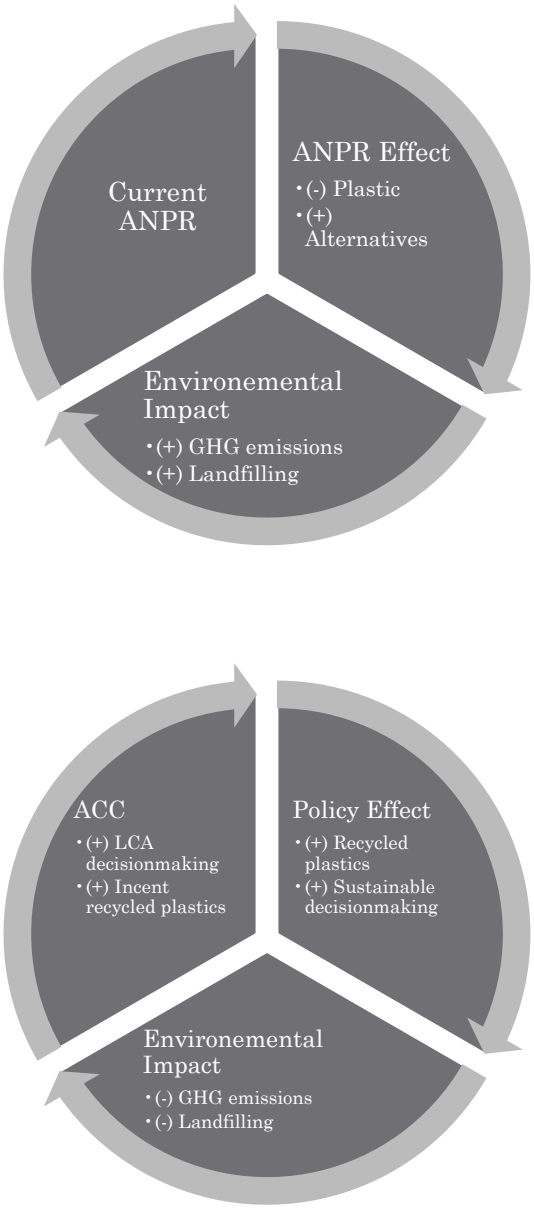
| | | |
|---|---|---|
| nonhazardous waste, including food.[78] | economy approach, (4) it is unclear how waste diversion will be achieved when purchasing heaver alternatives. | recycled plastic, (3) take an approach consistent with the circular economy, and (4) recycled content will help support landfill diversion. |

*Note.* Additionally, Congress should (1) require a 30 by '30 national recycled plastics standard, (2) create a modern regulatory system to develop a circular economy for plastics, (3) develop national recycling standards for plastics, (4) study the impact of greenhouse gas emissions from all material to guide informed policy, and (5) support an American-designed producer responsibility system.[79] (*See,* Congressional Action on page 12).

[78] Exec. Order. No. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.
[79] Plastic Division, "5 Actions for Sustainable Change."

**Figure 1**

*Effects of Current ANPR and ACC Suggested Policy*




*Note.* Additionally, Congress should (1) require a 30 by '30 national recycled plastics standard, (2) create a modern regulatory system to develop a circular economy for plastics, (3) develop national recycling standards for plastics, (4) study the impact of greenhouse gas emissions from all material to guide informed policy, and (5) support an American-designed producer responsibility system.