Statement of
Dan Felton, President & CEO

Flexible Packaging Association (FPA)

before the

U.S. House of Representatives
Committee on Energy and Commerce
Subcommittee on Environment

Hearing:
Beyond the Blue Bin: Forging a Federal Landscape for Recycling Innovation and Economic Growth

Wednesday, July 16, 2025

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Committee Chairman Guthrie, Subcommittee Chairman-Designate Palmer, Ranking Member Tonko, and Members of the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Environment.

The **Flexible Packaging Association (FPA)** very much appreciates the opportunity to appear before the Committee to discuss with you our positions and views on recycling infrastructure, needs, and technology for flexible packaging in the United States. This is a critical core policy issue for **FPA** and the flexible packaging industry in the U.S., and we must all work together to craft effective industry and public policy approaches.

FPA represents flexible packaging manufacturers and suppliers to the industry in the U.S. Flexible packaging in the U.S. represents $42.9 billion in annual sales, is the second largest and fastest-growing segment of the packaging industry and employs approximately 83,000 workers. Flexible packaging is produced from paper, plastic, film, aluminum foil, or any combination of these materials, and includes bags, pouches, labels, liners, wraps, rollstock, and other flexible products.

These are products that you and I use every day, including hermetically sealed food and beverage products such as cereal, bread, frozen meals, infant formula, and juice, as well as sterile health and beauty items and pharmaceuticals, such as aspirin, shampoo, feminine hygiene products, and disinfecting wipes. Even packaging for pet food uses flexible packaging to deliver fresh and healthy meals to a variety of animals.

For a more specific example, a retort pouch is a flexible or semi-rigid package made from heat-resistant laminated plastic and sometimes foil and then sealed and sterilized at temperatures up to 121°C with food products inside. Interestingly, the development of the retort pouch was driven by the U.S. military in the 1950s and 1960s to move away from rigid cans for individual combat rations to make those C-rations lightweight and save packing, distribution, and storage space. Thanks in part to the U.S. government, retort pouches then quickly became commercialized for non-military use as well, and of course, remain in the marketplace today.

Flexible packaging is also used for medical device packaging to ensure that the products packaged, like diagnostic tests, IV solutions and sets, syringes, catheters, intubation tubes, isolation gowns, and other personal protective equipment maintain their sterility and efficacy at the time of use. Trash and medical waste receptacles use can liners to manage business, institutional, medical, and household waste. Carry-out and take-out food containers and e-commerce delivery, which became increasingly important during the global COVID pandemic,

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are also heavily supported by the flexible packaging industry. Thus, **FPA** and its members are particularly interested in and deeply committed to solving packaging and plastic waste issues and increasing the recyclability and recycling of all packaging.

Developing end-of-life solutions for flexible packaging is a work in progress, and there are now more than a dozen peer organizations and many more private efforts working collaboratively to advance flexible packaging recycling. **FPA** is partnering with manufacturers, recyclers, retailers, waste management companies, brand owners, and other organizations to continue making strides toward total packaging recovery. Some examples of entities with which we are collaborating include The Recycling Partnership (TRP), the Hefty® ReNew™ Program, the Flexible Film Recycling Alliance (FFRA), and the Circular Action Alliance (CAA) Plastic Film and Flexibles Taskforce. These programs all seek to increase the recycling of flexible packaging. Also, increasing the recycled content within new products, including flexible packaging, will not only create markets for the products but will also serve as a driver for the creation of new collection, sortation, and processing infrastructure for the valuable materials that make up flexible packaging.

CHALLENGES AND SOLUTIONS FOR INCREASING FLEXIBLE PACKAGING RECYCLING

Flexible packaging is one of the most environmentally sustainable packaging types, as it reduces water and energy consumption, improves product-to-package ratio, enhances transportation efficiency, minimizes food waste, and reduces greenhouse gas emissions. But it is important to note that recycling is an iterative process, developed over time, and full circularity options for flexible packaging are generally more limited than some other packaging formats and materials (i.e., glass bottles, metal cans, paper, rigid plastic containers) that have been in the solid waste stream for much longer and have had more time to develop mature infrastructure options and solutions for collection, recovery, sortation, and end market delivery and usage.

There is no single solution that can be applied to all communities in the U.S. when it comes to the best way to collect, sort, process, and utilize end markets for flexible packaging. Viability is influenced by existing equipment and infrastructure; material collection methods and rates; volume and mix; and demand for the recovered material. For example, single-material flexible packaging, which is approximately half of the flexible packaging waste generated, can be mechanically recycled and is collected from consumers primarily through store drop-off programs. The other half—multi-material flexible packaging, and in particular food contact packaging—is better suited for advanced alternative recycling technologies such as pyrolysis and gasification, although gathering sufficient intake volume for these types of large manufacturing facilities is a current challenge.

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It is **FPA's** position that a full suite of options is needed to address the general lack of infrastructure for currently less readily recyclable flexible packaging materials, and promotion and support of market development for recycled packaging is an important lever to build that infrastructure. The following are more specific related challenges and potential solutions.

Increased Data, Funding, and Infrastructure

As stated earlier, there is a general lack of adequate infrastructure established to handle the recycling of flexible packaging in the U.S. fully, and this is largely true whether that packaging is collected through more "traditional" curbside collection, or through alternative collection methods such as depots, store drop-off, subscription pick up services, etc. This is not to say that most flexible packaging cannot be recycled, **because it can be**. We just need the proper collection, sortation, processing, and end market delivery mechanisms that already exist today put in place and scaled up to handle significant volumes of flexible packaging.

FPA believes that properly constructed and executed extended producer responsibility (EPR) program laws for packaging are one public policy mechanism that could significantly assist with increasing flexible packaging recovery and recycling in the U.S. through additional funding and infrastructure. Seven such laws have now been enacted in California, Colorado, Maine, Maryland, Minnesota, Oregon, and Washington State. While these laws are not all created equal and some are arguably overreaching in their goals and requirements, **FPA** is proud to have publicly supported the enabling legislation in Maryland and Minnesota as vehicles we believe have real potential to promote a critical and necessary shift in flexible packaging recycling in the U.S. while not placing overburdensome requirements or restrictions on flexible packaging manufacturers and users. With Oregon's program now in effect as of July 1, 2025, and programs in the other states going into effect over the next several years, time will tell how well these packaging EPR laws in the U.S. increase flexible packaging recovery and recycling.

Critical to the success of increasing any flexible packaging recovery and recycling in the U.S. is a clear understanding of the location and volume of packaging in the market, how and where it is disposed of at its end of life, where helpful recycling infrastructure does or does not exist to collect, sort, and process that packaging, and where end markets do or do not exist to turn that recycled packaging into another product. There are important mechanisms within the emerging packaging EPR laws and regulations in the U.S. to assist with this, including statewide recycling needs assessments and statewide collection lists. The data from these types of mechanisms is meaningful and will ideally help create harmonization and standardization within states and regions, and potentially even at the national level.

There are additional opportunities to help create harmonization and standardization at the national level through federal funding and data collection and usage, including two bills

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currently sitting before the House Energy and Commerce Committee for consideration. The Recycling Infrastructure and Accessibility Act (RIAA) (H.R.2145, Miller-Meeks, Sherrill) would require the U.S. Environmental Protection Agency (EPA) to establish a grant funding pilot program to improve recycling accessibility in communities where there is not more than one recycling materials recovery facility within a 75-mile radius of that community. The Recycling and Composting Accountability Act (RCAA) (H.R. 4109, Neguse, Burchett) would require the EPA to collect and publish data on recycling and composting rates across the country to provide an accurate reflection of performance both nationwide and at the state level. **FPA** has actively supported these sound public policy bills over multiple sessions of Congress and encourages the Committee to pass them this year.

Support for Emerging Sortation and Processing Technologies

Artificial intelligence (AI) and robotics have become meaningful contributors in recent years for the successful sortation of recyclables, including flexible packaging. Due to their light-weight nature, films and flexible packaging are harder to capture and more difficult to sort in a material recovery facility (MRF). The use of robotics to rapidly sort and direct these materials to the correct processing stream has proven to be highly advantageous. As films and flexible packaging can be made from many different resin types, the use of AI to help rapidly identify the resin further supports the ability to sort these materials effectively for recycling within large MRFs. There are several technologies currently being tested and used within MRFs that are showing great promise for properly handling and sorting flexible packaging. **FPA** encourages consideration of additional federal and state support, including funding or tax incentives for AI and infrastructure and research and development, to help drive these technologies even further.

Regarding emerging technologies for processing additional flexible packaging to bring even greater circularity to our industry's products and fill a large existing supply versus demand gap for plastic recycled content, particularly for food-contact packaging, **FPA** is supportive of advanced recycling—sometimes also referred to as chemical or molecular recycling. Common advanced recycling technologies, such as pyrolysis, gasification, and depolymerization, can convert used plastics that would otherwise be considered waste into high-value recycled content plastic using methods that are regularly deployed in other industries. Despite being a relatively nascent recycling industry compared to recycling technologies that have had decades to figure out how to process certain packaging formats and materials for a more circular economy, the petrochemical industry has voluntarily invested over $7 billion into advanced recycling technologies, leading to a massive 21 billion pounds of plastic waste being diverted from landfills across the nation each year.[1]

[1] https://www.americanchemistry.com/better-policy-regulation/plastics/advanced-recycling

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A common myth that **FPA** and others must constantly dispel with those that oppose or do not fully understand advanced recycling is that it is just burning plastic waste through incineration. This type of recycling relies on cutting-edge technologies that purposefully operate with little to no oxygen, thereby allowing for the recovery of material by transforming plastic products back into a chemical monomer for reuse. Studies have shown that flexible packaging manufactured with recycled content via advanced recycling results, on average, in 20% less greenhouse gas (GHG) emissions than the use of virgin materials. Because advanced recycling permits the manufacture of brand-new resins, quality issues typically associated with mechanically recycled content are negligible. Furthermore, advanced recycling produces emissions equal to or lower than similar facilities in other industries with the added benefit of no measurable lead or dioxin emissions. All advanced recycling facilities are subject to the same federal Clean Air Act standards as mechanical recycling and often outcompete those facilities on environmental indicators.

Advanced recycling is necessary for increasing the use of recycled content in some films and flexible packaging, as stringent quality standards enforced by the U.S. Food and Drug Administration (FDA) require additional washing and processing for mechanically recycled films to ensure no chemical migration, odor, or color is transferred. This restricts the use of recycled content in some product packaging (i.e., cosmetics, food, and medically sterilized devices), and obtaining FDA approvals for the use of mechanically recycled content for packaging for these types of products is often arduous and slow. Advanced recycling eliminates some of this lag because the technology returns plastics back into a monomer, eliminating concerns of chemical migration, odor, or color.

With the amount of interest and investment in advanced recycling, we are confident that engineers and chemists will be able to definitively make a compelling case that advanced recycling makes a significant and necessary contribution to our circular plastics economy. In the meantime, **FPA** supports consideration of legislative and regulatory proposals at the federal level to characterize advanced recycling as a manufacturing technology, rather than solid waste processing and management, as states continue to grapple with this issue inconsistently and some states (i.e., California, Maryland, New Jersey, New York, Oregon) have even sought to ban advanced recycling.

<u>Increased Recycled Content Use and End Market Development</u>

There is a strong desire and need for flexible packaging converters (manufacturers) and brand owners to use more recycled content in their packaging products, whether to meet stated company or organizational (e.g., Ellen MacArthur Foundation Global Commitment) sustainability goals or to meet emerging state EPR or recycled content requirements for packaging. FPA is generally supportive of helping its members increase recycled content in their

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packaging products, but not through unachievable or unreasonable government requirements that treat all packaging the same and therefore do not recognize certain unique attributes or needs of some flexible packaging (i.e., for food and medical) that may need to limit the use of recycled content.

It is also important to recognize the distinct differences between post-consumer recycled (PCR) content and post-industrial recycled (PIR) content, and the value of both for use in different flexible packaging applications and other products. Post-consumer recycled (PCR) content sources come in different grades of "cleanliness" depending on how the film is first used in a product and how and where it is recycled/sorted (back-of-house commercial and retail operations versus curbside recycling versus store drop-off). PCR content bale grades are reflective of the level of contamination they face. Business-to-business (think back-of-house retail) PCR content film is generally considered the best grade available. This is typically material that is quickly baled on site after it is used and sent straight back to recycling. It's clean because very few have touched it, and businesses use it in large volumes that can quickly and easily be baled.

As we move into the lower grades of PCR content sources, more people have handled it, and it takes longer to create sufficient volumes to bale. These grades are created as consumers mix their films and flexible packaging with other recyclables at the curb, or films and flexible packaging that have gone through the MRF, where they pick up more dust, potential food contamination (think of spilled soda in the recycling bin), etc. Because they are made up of multiple packaging products, lower grades of PCR content sources tend to have more inks and different print materials, as well as more color and odors. This is less valuable material as it is harder to clean and reuse back into packaging. The highest grade mechanically recycled sources for PCR may be more desirable for some packaging applications (i.e., food and medical), whereas the lowest grade mechanically recycled sources for PCR may be more acceptable for non-packaging applications such as building materials, decking and patio furniture, roadway products, railroad ties, underground drainage solutions, etc.

The use of mechanically recycled PCR content can be challenging to incorporate into flexible packaging at levels above 20-30%. Unless the PCR content source has been carefully selected, most PCR content sources have a broad range of properties, including variable color and potential odors due to contaminants and impurities present in the original post-consumer waste streams. Hence, for flexible packaging applications where there are more demanding performance and regulatory requirements, there is more limited potential to incorporate PCR content.

Post-industrial recycled (PIR) content, while not the same as post-consumer recycled (PCR) content, is equally important to the flexible packaging industry. PIR content, sometimes

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somewhat misleadingly referred to as pre-consumer recycled content, refers to materials that are recycled from industrial waste, specifically from manufacturing processes, before reaching consumers. This differs from PCR content, which comes from products that consumers have already used. PIR content materials include production waste, scraps, and defective products that are recycled back into the manufacturing process and is typically mechanically recycled on-site at manufacturing facilities.

The use of mechanically recycled PIR content from well-managed manufacturing waste sources can be an excellent source of recycled material. **FPA** members have demonstrated the ability to replace up to 95% of virgin resin with PIR content in non-food high-performance flexible packaging applications where film appearance, toughness, and processibility must meet stringent performance criteria. The use of PIR offsets the use of virgin resin and avoids material going to waste. For these reasons, PIR should be recognized as an important means to meet any mandated requirements for recycled content, and FPA believes the federal government could take a lead role in supporting this.

Just as recycled content occurs in a hierarchy, so too does recycling. Film to film or packaging to packaging is considered the highest and best use of material to drive a truly circular economy. For mechanical recycling, post-industrial films can generally be used back into film processes up to 95%. Higher grade post-consumer grades (like those collected from businesses or via material specific depot stations like store drop-off) can typically be used at 20-30% back into a film product, whereas the lower grade films that have been sorted by MRFs are often too contaminated to be used cost effectively back into packaging. But they are ideal for non-packaging applications, such as those durable plastic goods described above, that are proven to be more cost-effective and resilient than their traditional counterparts, indicating that there are advantages to these materials beyond just the use of recycled content. **FPA** believes there is an opportunity here to ensure we direct higher value material to the right processes, and an opportunity for government to support and incentivize the use of durables for lower grade recycled content, including through government procurement, while supporting R&D investments made for higher grade uses.

PCR or PIR content sourced through advanced recycling is, in a way, the “holy grail” because it can be used for all new product applications and is therefore particularly desirable for use in more high-performance product applications such as food and medical. Advanced recycled plastic has identical properties as virgin plastic and is often the preferred means to incorporate recycled content for contact sensitive applications such as flexible food packaging where appearance, odor, taste, or sterility matter.

There are multiple excellent examples of **FPA** members driving the demand for and supply of recycled content, enabling new end markets for flexible packaging and other products. For

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example, in May of this year, **FPA** member NOVA Chemicals, Inc., in collaboration with **FPA** member Novolex, announced[2] the commissioning of its first polyethylene (PE) film recycling facility, "SYNDIGO1," located in Connersville, Indiana. The facility is one of the largest and most sophisticated plastic film mechanical recycling facilities in the world. SYNDIGO1 spans 450,000 square feet and will recycle 145,000 bales of post-commercial end-of-life plastic film sourced from retail and distribution centers to annually produce over 100 million pounds of SYNDIGO™ recycled PE (rLLDPE), suitable for food- and non-food grade packaging applications. In 2024, the facility's mechanical recycling process received a first-of-its-kind Letter of Non-Objection (LNO) from the FDA confirming its ability to produce post-consumer rLLDPE that is suitable for food-contact applications. In April 2025, the facility achieved the Recycled Material Standard certification from Green Blue, which verifies that the SYNDIGO recycled polyethylene produced at the facility is 100% post-consumer recycled content. The facility will be operated by Novolex, capitalizing on its nearly 20 years of experience in operating plastic film recycling facilities.

In 2022, Novolex announced[3] that it was investing $10 million to expand capacity to recycle plastic bags and other polyethylene (PE) film at its recycling facility in North Vernon, Indiana. Their investment in mechanical recycling equipment will reduce waste and enable the plant to produce up to 28 million pounds of recycled content per year, which can be used to manufacture new products containing PCR or PIR content. The state-of-the-art equipment chosen for the expansion will be able to identify and sort a wide range of incoming materials such as plastic bags, pallet wrap, agricultural film, and more, providing important flexibility in the range of potential incoming feedstocks and annually diverting tens of millions of pounds of PE from landfills.

Less than three weeks ago, on June 26, FPA member Amcor announced[4] an investment in its Nicholasville, Kentucky, facility to increase PCR packaging production capabilities to support customers' varied PCR needs. The state-of-the-art system incorporates dedicated silos that feed multiple production lines to enable precise PCR blending, giving customers the ability to choose their optimal PCR percentage. The flexibility in PCR content—up to and including 100% PCR—is offered for custom and stock rigid packaging, demonstrating Amcor's ability to optimize manufacturing processes and enable increased use of PCR material. While this example is not directly applicable to flexible packaging, it does display another deep commitment to driving the use of PCR content by a company that also manufactures significant volumes of flexible packaging.

[2] https://www.novachem.com/media-center/news-releases/nova-commissions-rpe-recycling-facility/
[3] https://novolex.com/blog/novolex-invests-10-million-in-indiana-recycling-expansion/
[4] https://www.amcor.com/media/news/amcor-expands-pcr-capabilities-with-facility-investment

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These are just a few examples of how **FPA** members are genuinely committed to collaborating and investing to help the flexible packaging industry meet evolving sustainability goals and needs, reduce waste, support recycling end markets, bring more PCR-based packaging solutions to market, and contribute to a more circular economy – all while creating more jobs in the U.S. Federal and state government support for these efforts through smart (achievable) recycled content mandates for packaging and incentives for industry to invest even further will help.

Consumer Education and Labeling

All the increased data, funding, infrastructure, processes, technology, and end markets for the recycling of flexible packaging and other materials and products are essentially for naught if consumers cannot or do not recycle in the first place. While several of the topics addressed above, plus focused consumer education through those initiatives or otherwise, can certainly help address this problem, consumers would also benefit from more consistent and harmonized national requirements on what is considered recyclable and how and where it can be recycled.

California's "truth in labeling" law enacted in 2021 (Senate Bill 343) that establishes state-specific requirements for when packaging can be labeled as recyclable will likely lead to consumer confusion and more—not less—packaging going to landfill if allowed to go into full effect in October 2026, as it will immediately be in conflict with up to 30 other states with different requirements for recyclability labeling. There are several other states considering their own "truth in labeling" laws, and **FPA** is opposed to these state-level efforts.

Rather, **FPA** fully supports the consideration of a federal law, such as proposed in the Packaging Claims and Knowledge (PACK) Act drafted by AMERIPEN—the American Institute for Packaging and the Environment—that is awaiting introduction into Congress. The PACK Act would establish federal requirements for the labeling of packaging for compostability, recyclability, and reusability, with oversight by the U.S. Federal Trade Commission (FTC) that already maintains jurisdiction over guidance for product marketing claims through its Guides for the Use of Environmental Marketing Claims ("Green Guides"). We believe this approach, which will also support existing national labeling programs such as How2Recycle and the Biodegradable Product Institute (BPI) certification program for compostable labeling, makes far greater sense than a state-by-state approach and will lead to more consumers properly handling flexible packaging at its end of life.

# # #

In conclusion, **FPA** appreciates the opportunity to appear before the Subcommittee to discuss with you our positions and views on infrastructure, needs and technology for flexible packaging

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recycling and recovery in the United States as we strive to ensure the quality and safety of consumer goods as they are manufactured, shipped, stored, and consumed. **FPA** believes there is a unique opportunity for all of us to join forces to position the U.S. as a leader on recycling within the globally competitive circular economy, and we are committed and look forward to working with you, other policymakers, and all stakeholders within the flexible packaging value chain.

Recycling supports multiple domestic manufacturing industries while at the same time reducing our collective environmental impact. Carefully crafted investment by the U.S. government into supporting the highest and best use of materials for remanufacturing can result in significant advantages to our country, while helping industry to create new high-tech jobs at the forefront of AI, robotics, and science, technology, engineering, and mathematics (STEM).