RLC | Taking Action to Reduce Plastic Waste

Background and Frequently Asked Questions

What is non-mechanical (advanced/chemical/molecular) recycling?

Non-mechanical plastics recycling, also called advanced, chemical, or molecular recycling, includes technologies that convert post-use plastics into their basic molecular building blocks. These outputs are then used to produce new plastics, chemicals, and other valuable products.

Mechanical recycling retains a plastic's original molecular structure by collecting, cleaning, shredding, and melting plastics into new products. It works best for clean, single-resin plastics such as beverage bottles and milk jugs.

Non-mechanical recycling alters the chemical structure of plastics, either through solvents or heat, to break them down into molecular feedstocks. These technologies are well-suited for hard-to-recycle materials such as flexible films, multilayer packaging, mixed plastics, and contaminated streams.

Mechanical and non-mechanical recycling are complementary. Mechanical recycling works where feasible, while non-mechanical recycling expands the volume and types of plastics that can be recycled rather than landfilled or incinerated.

Why is non-mechanical recycling important?

Non-mechanical recycling enables plastics that cannot be mechanically recycled, and would end up in landfills, to be converted into high-quality recycled feedstocks. These materials can be used in applications with rigorous standards, including food-contact and medical products.

This type of recycling expands the domestic supply of recycled plastics at a time when companies face increasing state-level requirements to use recycled content in packaging. It also creates value from currently unrecyclable products such as plastic films, bags, carpets, artificial turf, textiles, and other durable goods that would otherwise end up in landfills.

States Differ on Recycled Content Claims

How do different states treat recycled content claims?

Roughly a dozen states, including California, Washington, New Jersey, Oregon, Colorado, and Maine, have enacted or proposed laws governing recyclability and post-consumer recycled (PCR) content claims.

Several states define recycled content in ways that do not fully recognize non-mechanical recycling, particularly where feedstocks include a mix of post-consumer plastics, manufacturing scrap, or off-spec materials, including:

- **California (S.B. 343):** Requires substantiation for recyclability and recycled-content claims; certain non-mechanical recycling outputs may not qualify under current definitions.
- **New Jersey (S. 2515):** Imposes PCR-content requirements that may exclude some non-mechanical recycling pathways.

Why is this a problem?

Companies must navigate conflicting definitions, redesign packaging on a state-by-state basis and comply with multiple reporting and marketing rules. The same package may carry different recycled-content claims depending on where it is sold. This complexity inhibits innovation and investment in new recycling technologies and increases waste into landfills, along with compliance costs, legal risk, and consumer prices.

Consumer Demand

Consumers consistently prefer products made with recycled materials:

- **75%** of U.S. consumers are more likely to buy from companies that use recycled materials in packaging or products.
- **70%** are more likely to purchase products made from recycled materials.
- **77%** want products clearly labeled with the amount of recycled content.

(Sources: WM Recycling Report 2024; NOVA Chemicals Survey 2024)

Federal Trade Commission Green Guides

What authority does the FTC have?

Under Section 5 of the FTC Act, the FTC may act against deceptive or misleading advertising. The Green Guides explain how the FTC evaluates environmental marketing claims such as “recyclable” and “made with recycled content.”

Because the FTC uses the Green Guides to instruct enforcement, companies follow them to reduce risk.

Last updated in 2012, the Green Guides do not provide clear guidance on non-mechanical recycling technologies or on how companies can substantiate recycled-content claims using mass-balance accounting, a method increasingly required to comply with state laws across various sectors and industries.

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The Recycled Materials Attribution Act (RMAA)

What does the RMAA do?

The RMAA sets clear definitions for recycling, recycled content, and mass balance accounting that will result in the diversion of waste from landfills, promote innovation, and unlock investment in new recycling technologies. It also directs the FTC to update the Green Guides based on these definitions.

The bill is narrowly focused on marketing and advertising claims. It does not regulate recycling operations, waste management, or environmental permitting, which remain under EPA and state authority, nor does it obligate any federal spending.

How does the RMAA help?

- Creates consistency and consumer transparency based on a national standard.
- Provides clarity for companies seeking to comply with recycled-content requirements.
- Supports increased supply and demand for recycled materials.
- Encourages investment in non-mechanical recycling technologies.

RMAA vs. PACK Act

The Two Bills are Complimentary

Both are designed to reduce confusion when it comes to recycling and recyclability, but at different points in the value chain.

PACK Act (Packaging and Claims Knowledge Act of 2025): Sets statutory rules for when packaging can be labeled recyclable, compostable, or reusable. It ensures truthful, clear consumer-facing claims related to waste disposal.

RMAA: Modernizes how recycled content and recycling are defined and attributed. It focuses on the packaging's content, that is, what is in the packaging in terms of recycled content.

Bottom line: PACK helps consumers recycle; RMAA ensures recycled content claims can be made consistently nationwide and opens the door to innovation in the recycling system.