

Supply chain letter on the need for mass balance fuel-use exempt for chemical recycling

13 October 2023

The undersigned, representing 20 associations in the plastics supply chain, call on EU Member States to urgently adopt mass balance fuel-use exempt as the EU harmonised mass balance method for allocating recycled content via chemical recycling.

An early warning report to Member States from June 2023 states that 19 countries are at high risk of not achieving their plastic packaging recycling targets¹. Currently, the EU plastics recycling rate is 38% (Eurostat, 2022) while the target for 2025 is 50%. Recycling efforts across the EU need to be urgently ramped up with a critical need for more investment in recycling and collection infrastructure. While mechanical and other physical recycling technologies will continue to expand and innovate, there is also a unique opportunity for chemical recycling to complement existing efforts to help achieve recycling targets and increase the volume of recycled content. Mandatory recycled content targets for packaging and automotive are currently being discussed at EU level.

Chemically recycled feedstocks are typically blended with virgin feedstocks and the two different feedstocks cannot be physically separated once they are co-fed into the complex large-scale installations. Therefore, a mass balance chain of custody is required to accurately calculate and verify the amount of recycled content allocated to products. Chemical recycling allows the use of plastic waste, especially feedstock not suitable for mechanical recycling, to produce new chemicals, including plastics. Recent academic research shows that mechanical, other physical and chemical recycling are complementary as these address different types of feedstocks².

As recognised by the European Commission's Joint Research Centre (JRC), chemical recycling is currently undergoing rapid technological developments³. When comparing the environmental performance of chemical recycling to incineration with energy recovery, chemical recycling already achieves significant greenhouse gas emission savings, and these are set to increase as the EU electricity grid gradually decarbonises.

Mass balance fuel-use exempt is crucial to incentivize the rapid scale-up of chemical recycling. An estimated 8-billion-euro investment is in the pipeline by 2030 that would produce 2.8Mt recycled plastics via chemical recycling across the different EU Member States⁴. However, these planned investments will not be achieved if the regulatory framework does not allow for a mass balance method that incentivizes scale-up.

¹ Report from the European Commission identifying members states at risk of not meeting the 2025 waste targets, available [here](#)

² Lase et al. 2023, How much can chemical recycling contribute to plastic waste recycling in Europe? An assessment using material flow analysis modelling, available [here](#)

³ Joint Research Centre 2023, Environmental and economic assessment of plastic waste recycling, available [here](#)

⁴ Plastics Europe estimates, available [here](#)

The mass balance fuel-use exempt approach is in line with the EU recycling definition in the Waste Framework Directive and we endorse this to be accompanied by stringent third-party certification and auditing systems to ensure the traceability of recycled content throughout the supply chain. Chemical recyclers are already using third party certification systems with mass balance allocation to ensure full chain of custody traceability for the products commercialised on the market. Other methods such as polymer only and proportional allocation will significantly increase the costs and the required chemical recycling capacity needed to achieve the recycled content targets in packaging and other sectors.

Earlier this year, 33 European associations [endorsed](#) mass balance fuel-use exempt as the best way forward to allow chemical recycling to scale, increase recycling rates and achieve the upcoming mandatory recycled content targets.

Signatories (in alphabetical order):



ACE
Alliance for Beverage Cartons and the Environment



BPF
British Plastics Federation



Cefic
The European Chemical Industry Council



Ceflex
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Chemical Recycling Europe



Der Grüne Punkt



EKO-PAK



EUMEPS
European Manufacturers of EPS



EuMBC
European Association of Masterbatchers and
Compounders



EuPC
European Plastics Converters



EURO-MOULDERS
Association of European Manufacturers of Moulded PU
Parts for the Automotive Industry



EUROPEN
The European Organisation for Packaging and the
Environment



EUROPUR
European Association of Flexible Polyurethane Foam
Blocks Manufacturers



Flexible Packaging Europe



INCPEN
Industry Council for Packaging & The Environment



Plastics Europe
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SCS
Styrenics Circular Solutions



TEPPFA
The European Plastic Pipes and Fittings Association



Valipac



Vinyl Plus
The European PVC's industry commitment to
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