Position paper on the design of mass accounting in the context of the application of the Single-Use Plastics Directive (SUPD)

Statement of BDE – Federation of the German Waste-, Water- and Circular Economy Management Industry, bvse – Federal Association Secondary Raw Materials and Waste Management, VBS – Association of Bavarian Waste Management Companies and VOEB – Association of Austrian Waste Management Companies on the EU Commission's proposal for an implementing decision on the calculation, verification and reporting of the recycled content of single-use plastic beverage bottles in accordance with Directive (EU) 2019/904 (Ares(2023)3075282 as of July 2025)

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1. Introduction

BDE – Federation of the German Waste-, Water- and Circular Economy Management Industry, bvse – Federal Association Secondary Raw Materials and Waste Management, VBS – Association of Bavarian Waste Management Companies and VOEB – Association of Austrian Waste Management Companies would like to express their gratitude for the opportunity to comment on the European Commission's new draft implementing decision for the implementation of Directive (EU) 2019/904 ('SUPD').

With this draft, the European Commission intends to establish binding requirements for the calculation, verification and reporting of the proportion of recycled plastic in single-use beverage bottles. We welcome the draft as a contribution to support transparency and accuracy of mass balancing in the field of chemical recycling and would like to congratulate the Commission on the adoption of some important provisions. At the same time, however, we would like to express our wish to see clear definitions and calculation formulas added in order to avoid misinterpretation and legal uncertainty.

Before commenting on the new regulations in detail, BDE, bvse, VBS and VOEB reiterate their fundamental criticism of the proposed use of the 'fuel excluded' method for mass balancing to determine the recycled content in chemically recycled plastics.

The 'fuel excluded' method can mislead consumers and lead to significant distortions of competition to the detriment of mechanical recycling: it allows significantly larger quantities to be reported as recycled plastic than are actually contained in the plastics. This is because all recycled input that is not used for fuel production can be counted towards plastic production – even though a large proportion is actually used for the manufacture of other chemical products and dual-use substances (i.e. substances that can be further processed into both fuels and other substances).

This allows primary plastic to be marketed as recycled plastic. In addition to the greenwashing involved and the associated deception of consumers, these plastics can also displace mechanically recycled plastics from the market due to their lower costs and greater acceptance by plastics processing companies.

BDE, bvse, VBS and VOEB therefore advocate the 'polymers only' method, which the EU Commission had originally proposed as a mass balance method. It ensures that only the recycled input that is actually used for the production of plastics can be counted. The revision clause in Art. 10 is crucial to guarantee of a level playing field throughout all recycling technologies and should be used to introduce the "polymers only" mass balancing method in 2030 at the latest.

2. Criticism in detail

2.1 Unfortunate change in definition of post-consumer waste

The change of definition of post-consumer waste, which now includes not only materials from waste within the EU but also materials from third countries, not only poses a threat to material quality and the European circular economy but it also results in a severe increase of implementation burden for Member States, as enforcement extends to all involved facilities beyond their immediate legal jurisdiction. It is our opinion that the legal grounds for this change of definition is not comparable to the case in the PPWR, as there would be no potential discrimination against imported products, since the calculation is made on Member States level and such products do not have a significant impact on the total amount of packaging placed on the market in any relevant country.

2.2 Mass balance calculation rules should be technology neutral and consider all relevant recycling processes

In recital (6) as well in recital (8), the Commission claims that all relevant recycling processes – including chemical recycling – are to be covered by the implementing decision. In order to cover all converting processes, e.g. solvolysis, pyrolysis and gasification as examples for chemical recycling, the draft needs to state more clearly which calculation rule is to be used for which processes by either having unambiguous scope description or definition of each of the possibly occurring processes.

On the one hand side the draft singles out mechanical recycling although basic calculation of yields is exactly the same as for other processes (redundancy creates confusion) and on the other handside it defines a workaround calculation method exclusively for a subprocess of pyrolysis, i.e. steam cracking.

This limitation of the draft can be seen by Article 7(3)" … before eligible material enters a steam cracker and where the input eligible material is in liquid form …" and by Article 7(4) "… before eligible enters a steam cracker or crackers …."

We welcome the review clause for this Implementing decision and would like to emphasize the fact that this alternative calculation method, which focusses specifically on mass balance for a subprocess of pyrolysis, i.e. steam cracking, is set for a limited time period.

2.3 Missing definitions and vague terminology

Although the regulations of the draft implementing decision are expressly intended to cover both processes – mechanical and chemical recycling – the list of definitions (Article 1) only contains a definition of mechanical recycling (point 20). Chemical recycling, on the other hand, remains undefined, which not only creates conceptual ambiguities but also leads to considerable uncertainty in interpretation for practical implementation.

The definition of "chemical building blocks" (point 15) is also too narrow, as it refers to chemical raw materials for polymer production rather than recovery products from chemical recycling.

Point 21 addresses steam crackers exclusively, while other relevant cracking technologies, such as catalytic cracking, are not mentioned.

This selective choice contradicts the requirement for comprehensive and technology-neutral regulation.

2.4 Improvements of the calculation model (Article 7)

Article 7 on mass accounting shows an unnecessary complexity and is quite unclear in the translation to actual calculation formulas.

Unfortunately, the open use of the term eligible input material in the context of "input into calculation point" as well as "input into steam cracker", will give way to wide interpretation of applicable amounts of input and output of cracking. Hence, the calculation will be subject to interpretation. The implementing decision would largely benefit from the use of supporting flow charts and accurate calculation formulas with unambiguous definition of each factor.

A scheme showing all processing steps with associated calculation formulas would be helpful. The calculation of applicable amounts of input and output of cracking may not be subject to interpretation.

As the logic of dual use categories is only mentioned in Article 7(4)(c), it is unclear whether the calculated amount in Article 7(3) is to be multiplied with such factors. To correct this, Article 7(4)(c) must become Article 7(5) (new) and the subsequent numbering must be corrected.

With this change the material accounted for as recycled content by calculation in chapter 3 shall also be traced throughout the subsequent processes, regarding the conversion factors of each of the subsequent processes and their output classification. In practice, however, the proportion of post-consumer waste originally used in the output can no longer be traced. This lack of traceability carries a serious risk that recycled fractions that do not originate from actual post-consumer material will be credited in the balance sheet. Such an approach would not only contradict the requirement for transparency but also pave the way for systematic "greenwashing".

3. Conclusion and demands

The desired harmonization of calculation and reporting procedures for recycled content in single-use plastic beverage bottles is undoubtedly necessary. However, the Commission's current draft could be improved in some aspects. In particular, chemical recycling is not defined; it is also described inadequately and imprecisely, and its diversity is not adequately reflected. The proposed mass balance approach can be significantly improved by adding unambiguous scope and formula definitions.

BDE, bvse, VBS and VOEB therefore call for:

1. keeping the original definition for post-consumer waste to support European circular economy
2. clear and differentiated consideration of all relevant chemical recycling processes, e.g. solvolysis and catalytic cracking, in mass balancing;
3. a clear and coherent definition of chemical recycling within the framework of the implementing decision;
4. ensuring transparent and tamper-proof mass balancing that allows the actual proportion of post-consumer plastic to be traced accurately;
5. consistently avoiding regulatory loopholes that could enable greenwashing.

Only through technically sound and compliant design can the implementation of the SUPD live up to its claim of effectively and credibly pursuing environmental objectives and promoting the circular economy in Europe.