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FORTUM SEEKS RECOGNITION FOR NOVEL RECYCLING TECHNOLOGIES IN THE COMMISSION'S PROPOSAL ON PACKAGING REGULATION

Key messages

- Novel technologies to recycle plastic packaging waste should be recognised in the proposal.
- Secondary raw material for food packaging will need novel technologies, such as chemical recycling and CCU, in order to comply with the quality required. The recycling rate targets and the targets on recycled content need to be in coherence.
- The timeframe for the requirement on the recyclability of plastic packaging needs to be earlier in order to be in coherence with the recycling targets.
- Very light weight carrier bags made of biodegradable plastic can compromise the quality of other mechanically recycled plastics. The use of biodegradable plastics should be limited to applications that are not at risk of being mixed with other packaging waste. Therefore, very light weight carrier bags should preferably be made of LDPE or HDPE and be directed to collection schemes for mechanical recycling where it can be recycled many times over.
- The Commission should not be empowered to decide on packaging that must be made of biodegradable plastics, because biodegradable plastics endanger the quality of other recycled plastics if they are unintentionally mixed in the collection schemes for plastic packaging waste.
- The regulation should be consistent in the wording for recycled plastics. Article 6 and 7 should use the proposed definition for secondary raw material when it refers to recycled material, in order to avoid confusion. We propose the following amendment in Article 7:
    - 1. From 1 January 2030, the plastic part in packaging shall contain the following minimum percentage of secondary raw materials (recycled content) ~~recovered from post-consumer plastic waste~~, per unit of packaging
- The proposed modulation of the fees in EPR schemes based on recycled content is a strong incentive to invest in recycling capacity.

16 February 2023

Fortum is engaged in plastic recycling and produces recycled plastics for various products and packaging. The feedstock consists mainly of separately collected packaging from households. The residues from the recycling process, mainly consisting of non-plastic materials and packaging not designed for mechanical recycling, are either treated in Fortum's energy recovery facilities or in external installations. A pilot to capture carbon from Fortum's Waste-to-Energy (WtE) plant and to explore technologies to utilise the carbon of waste-origin to produce new materials started in 2022. The aim is to develop the concept to produce feedstock for the manufacturing of synthetic materials, such as plastics, and decrease CO2 emissions from Fortum's waste and recycling activities.

Fortum welcomes the European Commission's ambitious proposal to regulate packaging over its entire life span as an important endeavour to achieve circular economy targets and to address and act on issues of increasing concern for the environment, EU citizens and the recycling industry. Fortum strongly supports the requirement that packaging should be recyclable, the minimum requirement on recycled content in new packaging and the ambitious recycling targets. It is important that all actors in the value chain commit to the achievement of the recycling targets.

Separate collection is an effective way for waste packaging to be recycled into secondary raw materials that can replace virgin raw materials. Opportunities to develop novel technologies to recycle mixed or residual packaging waste that is unsuitable for mechanical recycling – e.g. contaminated packaging and rejects from state-of-the-art mechanical recycling processes – should be recognised in the regulation. The regulation must allow for and support innovation to develop novel technologies, such as recycling waste carbon captured from the flue gases of a Waste-to-Energy plant for use as feedstock of future secondary raw materials (Carbon Capture and Utilisation, CCU). Calculation rules for recycling rates should be established at the EU level for such new technologies.

The proposal to require very light weight carrier bags to be made of biodegradable plastic can compromise the quality of recycled LDPE and other polymers if they end up in recycling bins with other plastic packaging destined for mechanical recycling systems. Therefore, the biodegradable requirement should be removed from the proposal. Preferably, these bags should be made of LDPE or HDPE for easy recycling in the existing recycling infrastructure. The Commission should not be empowered in delegated acts to add other types of packaging.

Recyclable packaging should never be intentionally mixed with other waste fractions because sorting waste that has already been mixed, such as municipal waste, makes it difficult to achieve a quality suitable for mechanical recycling. Mechanical, high-quality recycling of source-separated plastic packaging has a low environmental and carbon footprint and should be the preferred option to the extent it is possible. Recycling technologies that rely on separate collection (mechanical recycling and chemical recycling) alone will not be enough to achieve the recycling and recycled content targets; novel technologies will need to be introduced. For mixed waste, a CCU solution combined with a WtE plant is an emerging method to complement mechanical and chemical recycling of plastic.

16 February 2023

The secondary raw material feedstock in food packaging will require a quality that is achievable mainly by novel technologies. The desired quality of the secondary raw material for food-grade use comes at the cost of weighed material losses in the recycling processes (novel technologies). Achieving the targets on recycled content in food-sensitive packaging could conflict with the recycling targets. Therefore, the recycling targets and recycled content targets need to be coherent and take into account the emerging technologies necessary to achieve the required quality. The calculation rules for the attainment of recycling rates need to consider emerging novel technologies, such as chemical recycling and waste CCU.

Chemical recycling is a promising technology, especially for plastic materials that come into contact with food. Chemical recycling's low yield (recovery rate from plastics to plastics) is 20% at best. As such, chemical recycling alone is not a solution that enables the achievement of the recycling targets set in Article 46. Accordingly, mechanical recycling and novel technologies, such as the CCU recycling described above, will all be needed in the future.

The proposed regulation defines secondary raw materials as materials that have been obtained through recycling processes and can substitute primary raw materials. In Chapter II Sustainability requirements, Article 6 sets out rules for the determination of recyclable packaging, i.e. the packaging can be recycled so that the resulting secondary raw materials are of sufficient quality to substitute the primary raw material. The proposed timeframe, before the requirements would be applicable, is quite long. Fortum proposes accelerating the implementation of the said requirements. We also want to emphasise that the proposed requirements for recyclability would be applied much later than the targets for recycling rates (see Article 46). The timeframe for recyclability, especially regarding plastic packaging, should be in line with the recycling targets.

The following Article 7, Minimum recycled content in plastic packaging, uses another wording "post-consumer plastic waste" for recycled material; this creates ambiguity and confusion, because the way post-consumer plastic waste is defined is inconsistent with the definition of consumer. The regulation should be consistent in the wording for recycled material and should refer to the same definition for secondary raw materials. Moreover, we find it questionable in the context of a circular economy to narrow down the applicable waste streams for recycled content. Fortum proposes the following amendment to Article 7:

- 1. From 1 January 2030, the plastic part in packaging shall contain the following minimum percentage of secondary raw materials (recycled content) ~~recovered from post-consumer plastic waste~~, per unit of packaging

Article 7 also includes a requirement to modulate financial contributions to be paid by producers within the EPR schemes based on the recycled content in plastic packaging. Fortum supports the proposal. Eco-modulation is a strong incentive to increase recycling and to invest in recycling capacity.

16 February 2023

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