PackUK's draft updated statement of policy on modulation of waste disposal fees

The Producer Responsibility Obligations (Packaging and Packaging Waste) Regulations 2024 (referred to in this document as "the 2024 Regulations") require PackUK to publish its statement of policy on extended producer responsibility (EPR) for packaging waste disposal fee modulation. Modulation applies to all household packaging that is subject to EPR for packaging waste disposal fees.

This statement sets out how PackUK will adjust (or "modulate") household packaging waste disposal fees to reflect the extent to which that packaging is environmentally sustainable and to incentivise producers to use packaging that is more environmentally sustainable.

This statement should be read together with the confirmed fees which PackUK publishes on GOV.UK as they become available.

[placeholder for summary of how PackUK shared the draft statement and representations received]

What has changed

This statement supersedes the statement that PackUK published in June 2025. It updates the modulation multipliers (previously referred to as "modulation factors") by which red fees are increased for the 2027 to 2028 and 2028 to 2029 assessment years. There is no change to the previously announced modulation multiplier for the 2026 to 2027 assessment year. This statement also changes how immediate medical packaging will be modulated from the 2028 to 2029 assessment year, and how it should be reported for 2027.

How modulation works

PackUK will continue to use recyclability as its measure of environmental sustainability, as assessed by the recyclability assessment methodology (RAM) for the period of this statement. Producers report all in-scope household packaging with a rating of red, amber, or green, according to the RAM.

Packaging reported as amber under the RAM is charged a base fee that is published by PackUK. PackUK calculates and publishes a base fee for each material, based on local authority disposal costs.

Fees for packaging that is reported as red are increased by multiplying the amber base fee by the relevant modulation multiplier in the "modulation multipliers for red packaging per year" table in this statement.

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The revenue raised from the additional fees charged to red packaging is divided equally across packaging reported as green, lowering the fees for green materials below the base fees. The exact size of the discounts available for green materials is determined by the amount of red packaging put on the market, and the modulation multiplier.

Modulation multipliers for the 2027 to 2028 and 2028 to 2029 assessment years

This statement updates the modulation multipliers by which red fees are increased for the 2027 to 2028 and 2028 to 2029 assessment years. This will increase the fees for red packaging and make larger fee discounts available for green packaging. There is no change to the modulation multiplier for the 2026 to 2027 assessment year, which will remain 1.2.

For each assessment year covered by this statement, the modulation multiplier for red packaging will be as described in the table on modulation multipliers for red packaging per year.

Table: modulation multipliers for red packaging per year

Assessment year	**Calendar year used for fee calculations**	**Modulation multiplier for red packaging**
2026 to 2027	2025	1.2
2027 to 2028	2026	2.0
2028 to 2029	2027	2.4

Medical packaging

PackUK recognises that medical packaging is subject to strict medical safety rules.

Under regulation 64(10) of the 2024 Regulations, PackUK must take account of the legislation which applies to medical packaging, and which affects the ability of producers to use more environmentally sustainable packaging.

Medical packaging, as defined under regulation 2(2) of the 2024 Regulations, is treated differently to other packaging and must be reported under different codes:

- red - medical
- amber - medical
- green - medical

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Modulation for medical packaging (2027 to 2028 assessment year)

For 2026 data reporting under RAM 1.1 all medical packaging will continue to be assessed as ‘green - medical’, ‘amber - medical’ or 'red-medical' and will be modulated in accordance with these RAM ratings.

If your packaging meets the requirements of being red by virtue of regulatory requirement (RBVORR) as set out in RAM 1.1, it must be reported as 'amber-medical' and will be modulated in line with amber fees. The reporting and evidence requirements for RBVORR can be found in RAM 1.1.

Modulation for medical packaging (2028 to 2029 assessment year onwards)

For data reported in 2027 and in future years (2028 to 2029 assessment year onwards), immediate medical packaging that falls under the following definitions will be modulated differently:

- immediate packaging which is in direct contact with a medicinal product, as defined under 2(2) of the 2024 Regulations, or a veterinary medicinal product, as defined under 2(2) of the 2024 Regulations
- immediate packaging which is in direct contact with medical devices, as defined under 2(2) of the 2024 Regulations, and in vitro diagnostic medical devices, as defined in 2(1) The Medical Devices Regulations 2002

Where these types of immediate medical packaging are assessed as either red or amber under the RAM, they should be reported as ‘amber – medical’ and will be charged the amber base fee for the relevant packaging category. Where these types of immediate medical packaging are assessed as green under the RAM, they should be reported as ‘green – medical’ and will be charged the green fee for the relevant packaging category.

Other medical packaging that does not fall under these definitions must still be assessed and reported as ‘green - medical’, ‘amber - medical’ or ‘red – medical’ as appropriate and will be charged modulated fees in accordance with these RAM ratings.

[placeholder to note that the reporting guidance on medical packaging in RAM 2027 has also been updated in accordance with this approach]

Calculation of green disposal fees

The calculation for the modulation of RAM green-rated household packaging waste disposal fees starts by calculating the size of additional revenue generated by the modulation multiplier applied to RAM red-rated packaging materials. This additional revenue is then divided this by the amount of green tonnage multiplied by its respective disposal fee.

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This calculates the available fee discount which can be applied to all RAM green-rated household packaging waste disposal fees, while maintaining the total value of disposal fees paid across all packaging equal to that before modulation.

This calculated discount is then applied to a RAM green-rated household packaging waste disposal fee for a certain material category by multiplying its respective disposal by one minus the calculated discount.

$$Green_Disposal_Fee_i = Disposal_Fee_i \left[1 - \frac{Total\ Premium\ Charged\ to\ Red\ Across\ All\ Materials}{Sum\ of\ (Green\ tonnage\ on\ market \cdot disposal\ fee\ for\ each\ respective\ material)}\right]$$

The green disposal fee equals the disposal fee multiplied by one, minus the total premium charged to red materials across all materials, divided by the sum of green tonnage on the market, multiplied by the disposal fee for each respective material.

Formally, this equation can be written as follows.

$$Green_Disposal_Fee_i = Disposal_Fee_i \left[1 - \frac{\sum_{i=1}^{n}(Disposal_Fee_i \cdot Red_PS_i \cdot (RedMod - 1))}{\sum_{i=1}^{n}(Green_PS_i \cdot Disposal_Fee_i)}\right]$$

The green disposal fee for material i equals the disposal fee multiplied by one, minus a ratio. The numerator of the ratio is the sum across all materials of the disposal fee, multiplied by the red premium share and the red modifier, minus one. The denominator is the sum, across all materials, of the green premium share, multiplied by the disposal fee.

Where ‘i’ is the series of the 8 material categories:

- Red_PS is the quantity, in tonnes, of RAM red-rated materials supplied in the market
- Green_PS is the quantity, in tonnes, of RAM green-rated materials supplied in the market
- RedMod is the modulation multiplier applied to RAM red-rated packaging material fees (1.2, 1.6 or 2 times disposal fee, increasing over the 3 years)
- Disposal_Fee is the disposal fee for each material category
- Green_Disposal_Fee is the RAM green-rated disposal fee category charged per tonne, with a different fee charged for each material category

Illustrative simplified example

To simplify, there are only 3 material categories on the market. 1,000 tonnes of rigid plastics on the market, 2,000 tonnes of paper and 3,000 tonnes of glass.

The RAM breakdown of these categories is the following:

- rigid plastic - 60% green, 30% amber, 10% red (600 tonnes of green, 300 tonnes of amber, 100 tonnes of red)
- paper - 50% green, 30% amber, 20% red (1000 tonnes of green, 600 tonnes of amber, 400 tonnes of red)
- glass - 70% green, 20% amber, 10% red (2100 tonnes of green, 600 tonnes of amber, 300 tonnes of red)

The disposal fees for these categories are the following:

- rigid plastic - £423
- paper - £196
- glass - £192

The red modulation multiplier is 2 times the disposal fee.

Example of rigid plastic green disposal fee calculation

$$Green_Disposal_Fee_{rigid_plastic} = 423\left[1 - \frac{(423100\ tonnes \cdot (2-1)) + (196 \cdot 400\ tonnes \cdot (2-1) + (192 \cdot 300\ tonnes \cdot (2-1)}{423 \cdot 600\ tonnes + 196 \cdot 1000\ tonnes + 192 \cdot 2100\ tonnes}\right]$$

Equation for the green disposal fee for rigid plastic. The fee equals 423 multiplied by one, minus a fraction. The numerator of the fraction is: 423,100 tonnes multiplied by (two minus one), plus 196 multiplied by 400 tonnes multiplied by (two minus one), plus 192 multiplied by 300 tonnes multiplied by (two minus one). The denominator of the fraction is: 423 multiplied by 600 tonnes, plus 196 multiplied by 1,000 tonnes, plus 192 multiplied by 2,100 tonnes.

Example of the numerical equation for the rigid plastic green disposal fee

$$= 423\left[1 - \frac{178{,}300}{853{,}000}\right] = 423 \cdot [0.7909730] = £334.58$$

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Numerical evaluation of the green disposal fee formula. The expression simplifies to 423 multiplied by one minus 178,300 divided by 853,000, equal to 423 times 0.790973, giving a final value of £334.58.

The discount for green RAM-rated packaging for all material categories is one minus 0.7909730 = 20.903%

This would be applied to all green RAM-rated packaging, across all material categories.

Because the value of the redistribution pot is dependent on the quantity of RAM red-rated packaging material supplied, and the share of it is dependent on the quantity of RAM green-rated packaging material supplied, the final modulated fees can only be published once all data has been submitted for a given reporting year.

The approach to modulation being taken by PackUK operates across all material categories, providing consistent incentives for producers to switch to more recyclable packaging.

Next steps

PackUK will invite and consider industry views on the direction of future modulation in a Call for Evidence in early 2027.

PackUK will review this statement before the end of 2028 to 2029 and communicate its future modulation policy for 2029 to 2030.

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