

PLEASE NOTE: this document was originally drafted and agreed last year. Some key pieces of project information have been updated, such as project dates. However, references to the Governments thinking on modulated fees and Extended Producer Responsibility have not been updated. Please refer to the consultation document for the latest proposals and thinking.

Extended Producer Responsibility (EPR) Modulated Fees Research & Development Project 2020/21

Aims

- To establish a packaging format list and modulation mechanism for EPR for packaging.
- To establish, with support of stakeholders, how waste management costs should be apportioned to different materials and categories of packaging.
- To ensure the approach enables the effective functioning of producer fees and helps to avoid unintended outcomes.
- To establish a cost estimation calculator for advanced forecasting of producer fees, to allow for the estimation of fees helping producers better understand potential costs in the build up to the implementation of the EPR scheme.
- To complete this project in three phases using a SPRINT process as follows: -
 - Phase 1: Packaging Categories – by December 2020
 - Phase 2: Modulation Mechanisms – by June 2021
 - Phase 3: Driving Behaviour Change and System Outcomes – by November 2021
 - Final reporting – by December 2021

Background

The four nations of the UK have committed to implementing EPR for packaging and jointly consulted on a UK wide approach in 2019. The four nations are now jointly consulting further on the details of a reformed system.

A key element of EPR for packaging is that obligated producers¹ will be required to pay for the waste management costs associated with the packaging that they place on the market. These fees will be modulated (varied) according to certain criteria, such as the recyclability of the packaging that they place on the market. To allow for effective modulation and greater fairness within broad material groups the new system will require more packaging categories than there are in the current system. In the current system, producers report the tonnage of packaging they have placed on the market according to 6 material types (plastic, steel, aluminium, paper, glass, and wood). In the reformed system, there could be 80+ categories.

Previously, Defra, on behalf of the 4 nations, has commissioned Eunomia to look at approaches to modulated fees. This resulted in a report² with detailed recommendations relating to, amongst other things, mechanisms by which fees could be modulated and a packaging format list.

Governments of the four nations have worked recently to develop implementation plans and timelines for scheme delivery. This project was identified as an urgent piece of work that is required to enable timely delivery of the scheme. The outputs of this project (see following sections) will provide a scheme administrator with an 'off the peg' methodology to implement a system, on time, to fairly apportion and modulate producer fees, creating effective incentives for producers, while avoiding any perverse outcomes.

¹ The final decisions have not yet been made on who the obligated producers will be in the reformed system.

The governments of the four nations are currently consulting on this.

It will also:

- Provide those businesses who will be obligated with an early indication of the scale of the fees they will need to pay, giving them time to optimise their packaging choices if they so wish;
- Feed into the development of an IT solution; and
- Build buy-in across the value chain, for a system that Government currently envisions being sector led by actors across the value-chain.

Objectives

The project will seek to:

1. Review packaging formats proposed by Eunomia in 2019² and establish a packaging list
2. Establish data fields, and hierarchy of those fields, that will be needed to support an IT solution.
3. Establish the best modulation mechanism to take forward.
4. Establish how waste management costs could be shared between packaging materials and/or categories in a fair and transparent manner, taking account of the objectives of fee modulation, such as guarding against unintended consequences such as increased lifecycle carbon impacts. (This will feed into Objective 6).
5. Develop modulation scaling factors to feed into objective 6.
6. Develop a cost estimation tool to communicate to obligated producers estimated forecasts of the fees they may be expected to pay under different scenarios.
7. Develop a system by which the effectiveness of the packaging list, the apportionment of fees, and the modulation of fees can be monitored at a regular interval to inform future reviews and optimisation.

Approach

There will be a mix of technical analysis work and building sector knowledge, understanding and buy-in to the outputs of the work. This latter point is important because Government currently envisions actors across the value-chain taking control of the operation of the EPR scheme for packaging through a not-for-profit Scheme Administrator. However, given the lead in time for establishing a Scheme Administrator, the sector will likely need to take steps to start implementing the reforms in advance of a fully operating scheme administrator being in place. These changes will likely include data reporting, recycling information on packaging labels and voluntary changes in packaging used to enable the delivery of the scheme and its outcomes and objectives. As a result, clear, robust guidance, with wide sector support will need to be in place well in advance of implementation to guide action. This project will help provide some of this with regards fee modulation, however, the final decision on the approach and fee rates will likely sit with the Scheme Administrator.

Given the scale of the change, and the likely £1bn - 1.5bn per year costs that will be placed on producers, we can expect a very high level of interest in this work from both obligated producers³ and packaging manufacturers. As a result, arrangements will need to be put in place to not just engage stakeholders to inform the analysis, but to lead robust discussions and build sector consensus around the outputs, so that can form the basis for guidance to producers with no or very minimal further work required by government or producers.

² Eunomia report for Defra in 2019 – including recommended approach to modulated fees and packaging format list. Not published.

³ The final decisions have not yet been made on who the obligated producers will be in the reformed system. The governments of the four nations are currently consulting on this.

Phase 1 – Packaging Categories: by December 2020

Objective 1: Review the packaging formats as proposed by Eunomia in 2019 against the refined outcomes and objectives of packaging reform, fee modulation and labelling requirements to confirm (or propose amendments) that they provide a sufficiently granular level of detail to allow the scheme to function effectively.

Decisions around the agreed list of packaging formats will be at the heart of the reformed packaging EPR system. The packaging format list will underpin how modulated fees work to deliver core objectives around recyclability, high quality recycling and re-use systems. The list of packaging formats may also have a core role to play in other aspects of the scheme such as binary labelling of recyclability (i.e. either “recyclable” or “not recyclable”). Given its central role, it is important the right balance is struck between:

- The granularity of the list
 - The more granular the list is, the more refined the modulation of fees can be, making finer distinctions between packaging formats (e.g. different colours of the same polymer of plastic, or complex packaging vs simple packaging).
 - A list that is too simple or too complex, however, may result in perverse outcomes. As an example, if a producer’s packaging is easily recyclable but is grouped together with other formats that are not as easily recycled (and are therefore modulated to reflect this), then that producer may need to consider changing their packaging to reduce their fees.
- Reporting requirement on obligated producers
 - A list that is too granular may result in the reporting requirement being disproportionately burdensome when compared with the increased benefits it could provide.
- The effective administration of the system
 - If the list is too complex it may become unmanageable and impractical for the scheme administrator. The scheme administrator must be able to audit data effectively ensuring producers are submitting accurate information.

It is important that there is early clarity on this list, because it will underpin IT development and data gathering and reporting by obligated businesses. It is equally important that we future proof the list as best we can, so that future changes primarily relate to the addition or removal of new or now non-existent formats rather than a re-categorising of existing ones, to minimise future work for the scheme administrator and producers. As such we need to consider requirements for longer term goals such as re-usable packaging, or rationalisation of material types/colours driven by modulated fees to support high quality recycling or more effective systems.

How the packaging format list is updated and maintained will need to be considered as part of this project. This will include consideration of how new formats/categories will be identified and assessed.

Objective 2: Work with policy and IT user testing teams in government to establish the specific data that will need to be captured under each packaging format in the list, to underpin the delivery of the refined outcomes and objectives of packaging reform.

Sitting under the packaging formats there will be a range of different data that will need to be collected from producers to make the system work. This may include things like:

- Tonnage of packaging placed on the market
- For each packaging format, Number of items and weight of each item
- Recyclability (and related information)
- If the item is commonly littered or not – there will be a list of commonly littered items, that the scheme administrator will be responsible for maintaining, but it will be up to the producer to declare if their product matches an item in this list. This is because different products within one category on the Packaging List may be commonly littered or not littered.
- If viable reusable/refillable alternatives exist
- The volumes of a product (e.g. litres of washing liquid) sold through refill systems vs single use packaging

This work will need to establish a comprehensive list of these requirements and secure producer buy-in.

Phase 2 – Modulation Mechanisms: by June 2021

Objective 3: Establish which mechanism for modulation is best suited to meet refined outcomes and objectives of packaging reform, fee modulation and labelling requirements, whilst also taking account of the realities of the implementation timeline

As part of the 2019 Eunomia Project (referenced in Objective 1), Eunomia investigated mechanisms by which fees could be modulated, including an original solution and also a review of existing solutions in other countries. In addition to this, Valpak and Ecosurety have jointly presented an alternative mechanism.

This work will need to look at and compare these different mechanisms. Existing mechanisms in other countries should also be considered, including any lessons learnt from these (see Eunomia’s report). It should also consider whether a hybrid/altered mechanism may provide the best solution.

It is important that the recommended solution should:

- Meet the requirements and objectives as set out above.
- Function with the packaging list as set out in Objective 1.
- Take account of the realities of implementation. An interim solution may need to be considered if the solution that is considered the best fit is not deliverable on day one. If the initial mechanism does not allow for all of the requirements and objectives to be met, then a clear plan and timetable should be set out for how the mechanism will be developed. As an example, we currently don’t consider modulating for reusability to be achievable by year one, but we want to set out a plan for how this can be introduced later.
- Be adaptable. The mechanism will be monitored continuously for effectiveness (see Objective 7). If it is found to be -operating sub-optimally and not achieving necessary outcomes, the mechanism should be adaptable so that changes can be made quickly and with minimal disruption.

Phase 3 – Driving Behaviour Change & System Outcomes: by November 2021

Objective 4: Establish how waste management costs should be apportioned to different packaging materials or formats. This split should be fair and transparent, taking account of the objectives of fee modulation, such as guarding against unintended consequences (e.g. increased lifecycle carbon impacts).

Modulated fees are intended to drive good practice behaviours by producers such as using easy to recycle packaging. This piece of work will need to decide how the overarching cost of reforms should be split between broad packaging format families / material types.

This will need to take account of the four governments emerging thinking on modulated fees, but also balancing fairness between producers (i.e. relating to the actual costs of managing broad format families / material types) with the environmental outcomes of any decision on the split (e.g. if fair apportionment would result in significant environmental impact such as increased lifecycle carbon emissions from material extraction, recycling or food waste).

As an example: you might assign X% of the overall packaging waste management costs to plastic, because plastic takes up X% of the volume on collection trucks (this scenario is made up). If this then results in the compliance costs of plastic being very high, some who use easily recyclable plastic packaging may be incentivised to move to using glass to lower their compliance costs. This may result in a less desirable environmental impact due to carbon emissions, for example.

Where useful for input into scenario modelling, the governments of the four nations can provide the latest estimates of waste management costs and tonnages of packaging placed on the market.

Objective 5: Develop and agree relative scaling factors for modulation within packaging formats/material types in order to incentivise change and meet future targets.

The information needed here will depend on the outcomes of Objective 3. Objective 5 is about establishing the values that are needed for each category of the packaging list to allow the modulation mechanism to function. Depending on how the mechanism works, it may instead be about establishing the values that are an output of the mechanism, for each category in the packaging list.

Care should then be taken to ensure that these factors, when combined with the apportionment from objective 4, do not add up to create further unintended consequences. If unintended consequences are identified, then objective 5 and 6 would need to be repeated, iteratively, until they function effectively together and achieve the desired outcomes.

Objective 6: Establish a method for informing obligated producers of their likely costs

Producers are keen to develop an early understanding of the likely cost they will face as a result of the packaging reforms. This is to give them time to make format or material changes ahead of the reforms becoming operational to optimise their packaging choices and reduce their costs.

A method should be established for the best way to communicate to producers their likely fees. The estimates should be applicable to each format category.

The cost estimates will need to take account of waste management costs, litter costs (which may only impact a subset of producers who use commonly littered items) and modulation.

The solution will need to consider:

1. Transparency – clearly communicating to producers cost estimates in advance will help them to efficiently adapt to the new EPR scheme.
2. Clarity – it will be important to producers for the cost estimates to be as accurate as possible, giving them maximum clarity on what the EPR scheme will look like.
3. Uncertainty – it will be impossible to predict exactly how all producers will respond to the modulated fees. As a result producers may need to be given estimated costs under different scenarios based on the extent and speed at which they and other producers do change their packaging. The uncertainty around the estimated costs should therefore be made clear. The estimated costs will not commit the scheme administrator to certain fees in advance.

Objective 7: Establish a method for regular monitoring of the effectiveness of the systems that have been developed through this project. Namely, the packaging list, modulation of fees, and the apportionment of fees.

With the introduction of EPR for packaging we expect to see packaging producers making changes to the packaging they use. Some formats / materials may be used a lot less. Others may be dropped from the market entirely. This means that what works today may not work in a year (or even 3/6 months). Equally, it may be necessary for fee modulation to become more robust overtime to meet higher targets or lower system costs overall.

Therefore, the scheme administrator will need to continually monitor the effectiveness of the systems it is administering. Continuous monitoring will allow the scheme administrator to react quickly if it finds that the systems in place are not achieving the intended benefits, or if changes in the market have led to unintended consequences arising. It will also be important to establish these methods to allow the scheme administrator to provide government with assurance that it is operating an effective and beneficial system.

The objective here is to establish the most appropriate metrics by which to monitor effectiveness. It should then be established how these would be monitored, how regularly they would be monitored, and what values would be desirable/not desirable.

Being able to track key things like the number of items of packaging placed on the market, the average weight per unit, perhaps even the average weight of packaging per gram or ml sold would be helpful in understanding the overall increase or decline in single use packaging, the increase in re-usable packaging and the amount of light weighting. Also, if linked to type of item / product name /

barcode in some way it may provide valuable information for the scheme administrator on whether fee modulation was resulting in significant format switching and therefore driving the right behaviours or not. Equally, it should also be recognised that the monitoring of the system should be proportionate, and avoid overly burdening industry where this is not necessary.

Government will expect the Scheme Administrator to regularly report on the effectiveness of modulated fees. This will help provide reassurance that steps are being taken to incentivise change and demonstrate progress against a trajectory to meet scheme objectives and outcomes (e.g. long term targets) as part of a strategic plan.

Deliverables and timetable

Aim: To complete this project in three phases using a SPRINT process as follows: -

- Phase 1: Packaging Categories – by December 2020
- Phase 2: Modulation Mechanisms – by June 2021
- Phase 3: Driving Behaviour Change and System Outcomes – by November 2021
- Final reporting – by December 2021

Producers may need to start making decisions on the packaging formats they use around 1.5-2 years before they first pay fees, to both allow for changes to packaging labels required by the mandatory labelling scheme and to prepare for collecting the data needed to calculate their fees. As a result they will expect clarity on modulated fees well in advance of the go-live date. Given the profile of this work, the likely interest, and the challenge of building consensus it is expected that the substantive analytical work needs to be finished by December 2021, with the first phase being completed in December 2020 as per the Phase timescales above.

The deliverables:

- A report with the findings and recommendations from the project. This should include (but is not limited to):
 - Methodology and discussion of findings for each objective
 - A recommended packaging format list
 - A recommended method for the apportionment of waste management costs by packaging materials/formats
 - A recommended method for monitoring the effectiveness of the above three bullets.
 - A summary of feedback provided through stakeholder engagement
- A cost-estimation tool (see objective 4).
- Any spreadsheets, calculations, coding and assumptions used must be documented and supplied to Defra at the end of the project so that any further analysis, including sensitivity analysis, can be conducted internally to Defra if necessary.

In effect, this project should deliver an 'off the shelf' set of solutions for Modulated Fees Packaging Categories and Modulation Mechanisms that aim to deliver the desired behaviour changes and system outcomes required by the four governments. This set of solutions would be available for consideration, and possible adoption, by the EPR Scheme Administrator when it is in place in due course.