

Plastic Packaging Tax (PPT) – Discussion Paper 04 - Measurement Methods for a Mass balance Approach (MBA)

Discussion Objective: To identify issues which may arise in respect of methods of measurement for mass balance calculations for PPT

Summary of Issue

Background and Context

1. To carry out a mass balance calculation accurately, a suitable unit of measurement of the inputs and outputs should be used in the calculations. This issue was discussed extensively in the consultation document and summary of responses, and a policy decision is needed on what restrictions (if any) should be placed on the units of measurement permitted for PPT MBA calculations as part of the minimum standard for certification schemes. Any such requirement will potentially need to be in primary legislation so needs to be identified as soon as possible to progress this work at pace.

Detail and Analysis

2. Several methods of measurement were mentioned in responses to the consultation, including by mass in kg, molecular mass, and lower heating value (LHV). All of these approaches have advantages and disadvantages in respect of different stages in the recycling and manufacturing process. The government response to the consultation concluded that "it is not apparent from the responses that the use of any method would provide a consistent tax advantage." However, the majority of respondents suggested that mass was the most sensible way of measuring inputs and outputs to processes, and since publication of the responses document, the government has renewed its commitment to tax simplification. Additional complexity to the legal requirements may also have a negative impact on the timetable for delivery of MBA for PPT.

We would now like to test the possibility of mandating mass to be used. This has the benefits of simplicity and transparency and would ensure a consistent approach and level playing field between businesses. However, we recognise that there may be circumstances where other measures are more accurate and suitable.

- Some respondents to the consultation felt that LHV was more suited to processes producing fuel rather than recycled plastic, while others view LHV as a more accurate method in some circumstances. It is important that we understand the risks associated with LHV and determine whether any mitigation to manage these is needed.
- 4. It is possible that several mass balance calculations may take place through the process of chemically recycling and manufacturing, depending on the processes used. Once the stage of manufacturing raw recycled plastic into products is reached, it seems clear that mass will always be a sensible system of measurement, not least



because it is already part of the legislation for the tax in the requirement for 30% recycled content.

- 5. It is also important to note that certification schemes will cover and monitor the mass balance calculations throughout the recycling process. To some extent, the checking of the calculations will, therefore, fall to certification bodies rather than to HMRC, but it is nevertheless important to have a consistent approach.
- 6. If, therefore, we were to allow methods of measurement other than mass, there would need to be a convincing argument why these were necessary. We also need to determine what level of legislation is required in this area, and what can be left to certification schemes and existing industry standards.

Process Losses

- 7. The summary of responses document committed to process losses being deducted in MBA calculations. This is essential for the integrity of the tax and consumer confidence in recycled products. The document also committed to further work with industry to ensure these losses are accurately calculated and are not abused.
- 8. As with other areas, a key point here is likely to be defining in legislation exactly what should and should not be deducted as a process loss to ensure fairness and integrity. We would want to be both fair to businesses and prevent abuse and manipulation of the system by unscrupulous actors. This approach also contributes to a level playing field for all businesses.

Questions for discussion

Q1: How are mass, molecular unit, and LHV measured in practice? Is sampling involved, and is the methodology for this or other methods covered by certification schemes?

Q2: In which circumstances and for which processes, if any, is mass not appropriate to use as a measurement method? Can these be comprehensively defined, or is flexibility of approach needed?

Q3: What industry standards for methods of measurement already exist, and what are the requirements of existing certification schemes? Is there already an agreed minimum standard which it would be sensible to adopt?

Q4: If different measurement methods are used for processes in the same supply chain, how can we ensure that translation of quantities between methods is justified and accurate?

Q5: What are the risks to the integrity of the tax and fairness for businesses associated with each measurement method, and how could these be mitigated?

Q6: What are the advantages or disadvantages of legislating for use of specific methods of measurement in a particular supply chain or parts of a chain? What would be the risks of leaving this entirely to certification schemes to manage and determine?



Q7: How should process losses be defined and monitored to protect against abuse and maintain a level playing field between businesses?