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Consultation on recovery and recycling targets for packaging waste for 2013-2017

A consultation on proposed changes to the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended) and the Producer Responsibility Obligations (Packaging Waste) Regulations (Northern Ireland) 2007 (as amended)

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Welsh Government

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Abbreviations

ACP	Advisory Committee on Packaging
BIS	Department for Business, Innovation and Skills
C&I	Commercial and Industrial
EC	European Communities
EfW	Energy from waste i.e. incineration of waste with the recovery of energy
MBT	Mechanical/Biological Treatment
NPWD	National Packaging Waste Database
PERN	Packaging waste Export Recovery Note
PRN	Packaging waste Recovery Note
SME	Small and or medium-sized enterprise

Introduction

1. This consultation seeks your views on proposals by the Department for Environment, Food and Rural Affairs, the Scottish Government, the Welsh Government and the Department of the Environment for Northern Ireland, for new recovery and recycling targets for 2013-17 in the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended) and the Producer Responsibility (Packaging Waste) Obligations (Northern Ireland) Regulations 2007 (as amended). These Regulations are referred to as "the Packaging Regulations" in the rest of this document.

2. The UK has had since 1997 a statutory producer responsibility scheme for packaging recycling, which implements the EU Packaging Directive. This scheme internalises some of the externalities of dealing with packaging at the end of its life in a way that is better for the environment and natural resources than landfill. It does so by setting minimum recycling and recovery targets on UK businesses in the packaging supply chain. Current targets run until 2012. The targets have been flat for the past 2 years. The proposed targets are intended to run from 1 January 2013 for five years.

3. Despite recent successes in increasing the amount of packaging that is recycled, there is still a perception amongst both householders and businesses that more packaging should be recycled. It is a very visible presence in our bins. The Government has chosen to abolish plans to charge householders in England for the collection of residual waste, as it would increase the tax burden on families, and lead to unintended consequences such as more fly-tipping and backyard burning. It is also not appropriate to consider market mechanism from the perspective of the householder, not least because of the range and variation in household waste collection services across England (which may or may not properly reward recycling) are so different. Householders can be incentivised to recycle more through, for example, simpler collection systems and reward and recognition schemes.

4. Statutory recycling targets on packaging producers are required to ensure that the UK continues to meet the minimum recovery and recycling levels set down in the Packaging Directive. Following the announcement of a review of waste policy in England, Ministers decided to set targets for 2011 and 2012 only, and to set future targets in line with the outcome of the review. The Advisory Committee on Packaging, an expert committee advising government on packaging policy, has previously recommended that future targets should be set for a minimum of at least 5 years in order to provide industry with greater certainty for planning and future investment purposes. Similarly, an incremental increase year on year is preferable – a delay and then a sudden large jump in targets could result in lack of certainty for industry in terms of longer-term planning on funding for e.g. infrastructure.

5. The costs and benefits of the proposals are described in the Impact Assessment (IA) that accompanies this consultation paper.

6. The proposals in this consultation are expected to be of greatest interest to:

- Packaging 'producers', as defined in the Packaging Regulations
- Packaging compliance schemes

- Reprocessors and exporters of waste packaging
- Waste management companies and local authorities involved in the collection of packaging
- any research institutions, groups or individuals with a particular interest in packaging waste.

7. In summary the options included in this consultation document and Impact Assessment are:

Option 1 – keep all packaging recycling and recovery targets to the minimum required to meet EU targets until 2017

Option 2 – Higher recycling targets for aluminium and plastic (respectively 1% and 2% increase/yr from 2013, through

a) Statutory targets
b) Statutory targets to EU minimum plus voluntary responsibility deals

Option 3- Higher recycling targets for aluminium, plastic and steel with glass recycling split by end use (respectively 3%, 5% and 1% increase/yr from 2013) through

a) Statutory targets
b) Statutory targets to EU minimum plus voluntary responsibility deals
c) Statutory targets to EU minimum plus introduction of deposit return system

8. The UK Government's preferred option is 3a.

9. This consultation fulfils the requirement in section 93(2) of the Environment Act 1995 to consult those likely to be affected by any proposed changes. In Northern Ireland the consultation fulfils the requirement in Article 3(2) of the Producer Responsibility Obligations (Northern Ireland) Order 1998. Defra has taken the decision to reduce the consultation period from 12 weeks to 8 weeks, in order to allow a decision to be made by Budget 2012. Defra is happy to meet with stakeholders to talk through the options in the consultation document and the Impact Assessment to allow for the reduced consultation period.

Comments should be submitted by Friday 10th February at the latest.

Responding to this consultation

10. Please send your comments on the proposals in this paper and on the accompanying Impact Assessment to the following address:

Producer Responsibility Unit
Defra
Area 6D Ergon House
Horseferry Road
London SW1P 2AL

Or you can send your comments electronically to packaging@defra.gsi.gov.uk

Respondents in Scotland should also send their response to:

Tim Chant
Zero Waste Delivery Team
Environmental Quality Division
Scottish Government
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Edinburgh
EH6 6QQ

Email: Timothy.chant@scotland.gsi.gov.uk

Respondents in Wales should also send their response to:

Mrs Anna Madeley
Waste Regulation Policy branch
Welsh Government
Cathays Park
Cardiff
CF10 3NQ

Email: waste@wales.gsi.gov.uk

Respondents in Northern Ireland should also send their response to:

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Environmental Policy Division
DoENI
6th Floor, Goodwood House
44-58 May Street
BELFAST
BT1 4NN

Email: janis.purdy@doeni.gsi.gov.uk

Publication of responses

11. In line with Defra's policy of openness, at the end of the consultation period, copies of the responses received will be made publicly available through the Defra Information Resource Centre for six months. The information contained in the responses may also be published in a summary of responses.

12. If you do not consent to this, you must clearly state that you wish your response to be treated confidentially. Any confidentiality disclaimer generated by your IT system in email responses will not be treated as such a request. You should also be aware that there may be circumstances in which Defra/Welsh Government will be required to communicate information to third parties on request, in order to comply with their obligations under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004.

13. The Defra Information Resource Centre will supply copies of consultation responses to personal callers or in response to phone or email requests. An administrative charge will be made to cover photocopying and postage costs. Wherever possible, personal callers should give the Centre at least 24 hours' notice of their requirements. Please contact the Defra Information Resource Centre, Lower Ground Floor, Ergon House, Horseferry Road, London SW1P 2AL, tel. 020 7238 6575, email defra.library@defra.gsi.gov.uk .

Recycling and recovery targets 2013-2017

1 A quick overview of producer responsibility for packaging

1.1 The EC Directive on Packaging and Packaging Waste (94/62/EC, as amended – hereafter referred to as 'the Packaging Directive') aims to harmonise the management of packaging waste by minimising the impact of packaging and packaging waste on the environment and by avoiding obstacles to trade and distortion and restriction of competition within the Community.

1.2 The Directive as amended[1] sets minimum recovery targets (60%) and recycling targets (55%) for packaging waste, to be met by 31 December 2008, as well as material-specific recycling targets. These are 60% for glass, 60% for paper and board, 50% for metals, 22.5% for plastics, and 15% for wood.

1.3 After 2008, Member States must continue to meet these minimum targets, but they have the freedom to set higher targets if they so choose.

1.4 The Packaging Regulations implement the Packaging Directive through a system of 'producer responsibility', which is an extension of the 'polluter pays' principle. This system makes producers (businesses that handle more than 50 tonnes of packaging per annum and have an annual turnover of over £2 million) responsible for meeting their share of the targets listed above, based on their role in the supply chain and the amount of material handled in the preceding year.

1.5 The Packaging Regulations transpose the Packaging Directive targets into a set of UK '*business targets*' which reflect the UK packaging market and waste arisings. These targets currently run until 2012. **We therefore need targets for 2013 onwards, to ensure that the UK continues to achieve the Directive's recovery and recycling targets, and to encourage greater resource efficiency and reduction in greenhouse gas emissions.**

[1] Directive 2004/12/EC

2 Review of waste policy

The way forward for packaging recycling

England

2.1 In June 2010, Defra published the Review of Waste Policy in England[2]. The Review highlighted the commitment to being the greenest Government ever and addressed issues of how to deal with our waste in the face of broader concerns such as material security, energy, climate change and environmental protection. The Review acknowledged that significant progress has been made in terms of reducing the volume of waste sent to landfill and increasing recycling rates, but pressed to go further and faster.

2.2 In conducting this Review, Defra has been guided by the "waste hierarchy", which is both a guide to sustainable waste management and a legal requirement under the revised Waste Framework Directive. The hierarchy gives top priority to waste prevention, followed by preparing for re-use, recycling, other types of recovery (including energy recovery), and last of all disposal (e.g. landfill). In many cases, carbon acts as a good proxy for the overall environmental impacts of waste: generally speaking, the higher up the waste hierarchy waste is treated, the smaller the greenhouse gas impacts.

2.3 As part of this, the Review committed to promote resource efficient product design and manufacture and target those waste streams with high carbon impacts, both in terms of embedded carbon (food, metals, plastics, textiles[1]) and direct emissions from landfill (food, paper and card, textiles, wood). We will promote the use of life cycle thinking in all waste policy and waste management decisions and the reporting of waste management in carbon terms, as an alternative to weight-based measures.

2.4 In driving waste up the hierarchy, we must ensure that the UK meets its EU obligations and targets on waste management. At the same time, we need to make it easy for people to do the right thing and get the balance right between the service householders and business receive, our environmental objectives and the costs and benefits of different policy options.

2.5 With specific relation to packaging, the Review highlighted that voluntary action is also an important driver of behaviour change on packaging. Survey after survey shows that consumers believe packaging is a big environmental problem. The Government will work with business to encourage – where appropriate – greater use of recycled content in packaging, as well as to make packaging more recyclable.

2.6 Regulation on packaging has also played a valuable role in creating markets and driving behaviour change. This consultation sets out three options for recycling targets on packaging producers from 2013 to 2017. The three options are:

> Option 1 – keep all packaging recycling and recovery targets to the minimum required to meet EU targets until 2017

[2] http://www.defra.gov.uk/publications/files/pb13540-waste-policy-review110614.pdf

Option 2 – Higher recycling targets for aluminium and plastic (respectively 1% and 2% increase/yr from 2013, through

a) Statutory targets
b) Statutory targets to EU minimum plus voluntary responsibility deals

Option 3- Higher recycling targets for aluminium, plastic and steel with glass recycling split by end use (respectively 3%, 5% and 1% increase/yr from 2013) through

a) Statutory targets
b) Statutory targets to EU minimum plus voluntary responsibility deals
c) Statutory targets to EU minimum plus introduction of deposit return system

2.7 The UK Government's preferred option is 3a.

2.8 In recommending the UK Government's preferred option and as highlighted in the Review, we have had to consider issues such as affordability for businesses and Government. As also outlined in the waste review, we are also consulting on establishing a sub-target for recycling of glass into re-melt applications. Recycling more glass, plastic and aluminium packaging is beneficial in greenhouse gas terms. Government will make a final decision in the 2012 Budget.

Table 1: UK packaging recycling and recovery achievement, 2010

	Total Waste (tonnes)	Amount recycled/ recovered (tonnes)	Directive Target	Achievement
Paper	3,787,560	3,099,941	**60%**	81.9%
Glass	2,712,860	1,647,917	**60%**	60.7%
Aluminium	147,500	60,304		40.9%
Steel	652,000	386,621		59.3%
Metal	799,500	446,925	***50%***	55.9%
Plastic	2,478,630	598,252	**22.5%**	24.1%
Wood	1,023,939	771,224	**15%**	75.4%
Total recycling		**6,568,370**	**55%**	60.7%
EFW		721,505		
Total Recovery		**7,289,875**	**60%**	67.3%

2.9 The UK recycled 60.7% and recovered 67% of its packaging waste in 2010. In 1998, these figures were 27% and 30% respectively. This increase is a significant achievement, and a key milestone in the UK's progress on packaging recycling. It is helping in the fight against climate change, saving roughly 6.4 million tonnes of CO_2 equivalent from being emitted into the atmosphere.

2.10 As stated in the Waste Review, Defra intend to review the producer responsibility regime in time for a new Packaging Directive (expected from 2014). Any changes to the shape of the producer responsibility regime will be decided in light of the scope and requirements of the new Directive, and we will be working with

stakeholders to see how existing Producer Responsibility regimes, including packaging, could be simplified to deliver reduced administrative burdens.

Scotland

2.11 Scotland's waste policy is set out in its innovative Zero Waste Plan, published in June 2010. The Plan highlights Scotland's ambition to:

- Treat waste as a resource that should not be discarded carelessly;
- Tackle all waste, not just municipal waste;
- Achieve total recycling targets of 70% by 2025, with no more than 5% of all waste going to landfill.

2.12 One of the Plan's commitments was for the Scottish Government to look at statutory producer responsibility measures to see if they can be made to drive recycling and waste prevention in Scotland.

2.13 Most recently, through its Zero Waste Regulations, the Scottish Government has set a timetable for the separate collection of recyclables and progressive landfill bans on various materials

Wales

2.14 Towards Zero Waste (Towards Zero Waste), the overarching waste strategy document for Wales, was launched in June 2010. The strategy document shows how we will reduce the impact of waste in Wales to within our environmental limits by focussing on reducing the ecological footprint of waste to one planet levels by 2050. The Welsh Government are putting actions in place to reduce the waste generated in Wales by 1.5 per cent of the 2007 baseline every year until 2050, and to increase recycling to a rate of 70% by 2025.

2.15 Packaging waste is a significant and visible element of the waste produced by householders and businesses in Wales. The Welsh Government is working with partners to decrease the environmental impact of packaging, reduce packaging waste through innovations in packaging design and logistics, and manage our packaging waste in the most environmentally sustainable way.

2.16 The Welsh Government is committed to developing a strong economy in resource management, and has developed actions to ensure:

- High levels of clean recyclates to drive the market
- The right kind of recycling facilities, resulting in closed loop recycling
- Strong markets for recyclates

2.17 Producer responsibility schemes are supported by the Welsh Government because they ensure that companies are accountable for the environmental impact of the products and associated packaging that they make and sell.

Northern Ireland

2.18 The Northern Ireland Waste Management Strategy 2006-2020 provides the policy basis for waste management in Northern Ireland. It contains actions and

targets designed to move away from simply managing the waste produced towards recognition of this waste as a valuable resource.

2.19 The strategy identifies packaging as a priority waste stream that should be addressed through producer responsibility legislation, and initiatives such as the 'Courtauld Commitment' which aims to design out packaging waste growth and deliver absolute reductions.

2.20 The Department of the Environment for Northern Ireland is undertaking a scoping exercise that could lead to a review of the current Waste Management Strategy.

2.21 The scoping exercise commenced in August 2011 and is considering all relevant drivers, including EU Directives and Regulations, and recent strategic statements in the UK and Ireland. The output from this exercise will set out the options for a review based on the identified policy and legislative interventions.

Impact on Growth

2.22 It is also important to highlight the growth opportunities that higher targets would drive. The PRN revenue goes directly from packaging producers to reprocessors who are required to use the funds to invest in building recycling and recovery capacity. Increasing targets would therefore drive growth in the recycling and recovery sector.

2.23 The money that passes to reprocessors in the form of PRN revenue has to be spent on collection, capacity or end markets or allocated for future spend on one of those areas. Although the reporting system is not perfect, and there have been issues with untraceable amounts, the allocations, reported publicly are as follows:

- For 2010: £9.4m spent on infrastructure and capacity, £3.7m on funding collection and £17.4m on reduction in price and developing new market for recyclate from a total of £34m revenue.
- For 2009: £13.8m on capacity, £2.8m on collection, £2.1m on end use markets. £14m was spent on 'other uses' which was not allocated. This was from a total £84m revenue.

How revenues are spent is monitored as part of the accreditation process. The data is on the National Packaging Waste Database: http://npwd.environment-agency.gov.uk/Public/PublicSummaryData.aspx

2.24 An updated report on the Low Carbon goods sectors by the Department for Business Innovation and Skills (BIS), updated for 2009/10 shows that the UK recovery and recycling sector grew sales by over 3% p.a. over 2007/8 to 2009/10 and is forecast to grow by 3.4% in 2010/11, 3.6% 2011/12 and 3.8% 2012/13.

2.25 Investment in collection and infrastructure for recycling will displace some landfill activity, but will lead to an overall increase in resource efficiency in the economy. The actual net impact on labour force is difficult to measure but the wider benefits should feed through to the economy.

2.26 Like the intention of the landfill tax escalator increase, the higher packaging targets provide greater certainty to businesses to invest in capacity for the recycling

process. Given the rigidities in the contracting process for collection and treatment of waste, particularly by LAs, the greater long term certainty of volume increases is likely to increase private investment in this sector.

2.27 Packaging producers also have a potential commercial gain from higher targets. With more recyclable material in the system, packaging producers can increase the amount of recycled content in their packaging which can save them money e.g. glass reprocessors use 1 tonne of recycled glass instead of 1.2 tonnes of material to make virgin glass. There is therefore a further saving in energy costs as it is less energy intensive to re-melt recycled glass than virgin material.

3 Recycling and recovery targets: baseline assumptions

3.1 The Packaging Regulations include a de minimis threshold, exempting businesses which have a turnover below £2m and who handle under 50 tonnes of packaging; they are 'not obligated'. However, the packaging that is handled by those exempt businesses still counts when calculating the UK's recycling performance. This is because the Packaging Directive targets are set as a percentage of the total packaging waste arising in each Member State.

3.2 Therefore, the recycling and recovery targets which apply to the 'obligated tonnage' (that handled by 'obligated businesses') are higher than those set by the Packaging Directive in order to cover the difference. This ensures that the UK complies with the provisions of the Directive. These higher targets are known as '**UK business targets'**.

3.3 Target setting starts with the following data:

i. the amount of packaging flowing into the UK waste stream, by material; and
ii. the level of packaging that is 'obligated' on the UK market.

3.4 The next section looks at the estimates available for both sets of data. All other assumptions are cited in the accompanying Impact Assessment.

Packaging flowing into the UK waste stream

3.5 The current targets, set in 2007, used 2006 data as a baseline. To take account of the effects of the economic downturn, **we propose to use 2011 data as a baseline**. This data is based on industry estimates for packaging production, and hence waste arisings.

Table 2: estimated packaging flowing into the waste stream, 2011

Material	tonnage
Paper	3,817,860
Glass	2,739,989
Aluminium	160,877
Steel	648,740
Plastic	2,515,809
Wood	1,023,939
Other	22,443
Total	10,929,657

3.6 To this baseline, we propose to apply the projected growth rates below. These are based on industry predictions captured in the PackFlow[3] report, which have been updated following further discussions with key materials organisations, and on an extrapolation based on historic growth rates.

[3] http://www.valpak.co.uk/nav/redir.aspx?l=/docs/packaging/packflow_2012_final_report_19_11_2009.pdf

3.7 These figures have been discussed with bodies such as the Advisory Committee on Packaging (ACP) and its Targets and Transparency Task Force, the trade bodies representing material sectors and WRAP. All ongoing lightweighting work, including existing voluntary agreements such as the Courtauld Commitment, and predicted shifts within a given sector have been factored in to the data.

Table 3: Predicted growth rates of packaging flowing into the UK waste stream, by material, %

	2013	2014	2015	2016	2017
Paper	0.5%	0.5%	0.5%	0.5%	0.5%
Glass	1.0%	1.0%	1.0%	1.0%	1.0%
Alu'm	1.0%	1.0%	1.0%	1.0%	1.0%
Steel	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
Plastic	2.5%	2.5%	2.5%	2.5%	2.5%
Wood	0.5%	0.5%	0.5%	0.5%	0.5%
Other	0.0%	0.0%	0.0%	0.0%	0.0%

3.8 By applying the growth rates in Table 3 to our 2011 baseline, we can derive projected packaging waste arisings in the period 2013-2017 (Table 4).

Table 4: Total amounts in the waste stream 2013-17

	2013	2014	2015	2016	2017
Paper	3,867,645	3,886,984	3,906,419	3,925,951	3,945,580
Glass	2,795,062	2,823,013	2,851,243	2,879,756	2,908,553
Alu'm	163,785	165,423	167,078	168,748	170,436
Steel	642,269	639,057	635,862	632,683	629,519
Plastic	2,617,385	2,682,820	2,749,890	2,818,638	2,889,104
Wood	1,029,058	1,034,204	1,039,375	1,044,572	1,049,795
Other	22,555	22,555	22,555	22,555	22,555
Total	11,137,761	11,254,056	11,372,422	11,492,902	11,615,542

Q1. In your view, are our projections for waste arisings reasonably accurate?

Are you aware of any other factors which may affect the levels of packaging entering the waste stream?

Please provide us with as much evidence as possible to support your answer, so we can adjust our figures as necessary.

Obligated tonnage

3.9 Estimating the "obligated tonnage" requires assumptions to be made about the amount of packaging businesses will handle in future years. This does not, and cannot take account of future unknown economic or market events at a national or international level, nor of commercial developments at company level.

3.10 The current targets in the Packaging Regulations are based on the assumption that obligated tonnage in the years 2007-2011 would closely follow the prevailing trend for material placed on the market.

Table 5: Actual obligated tonnage 2008-20010

	2008 actual obligated tonnes	2009 actual obligated tonnes	2010 actual obligated tonnes	*2011 actual obligated tonnes
Paper	3,710,199	3,599,341	3,593,911	3,632,423
Glass	2,112,161	2,079,708	2,089,286	2,099,069
Alu'm	137,645	146,652	147,755	156,446
Steel	547,350	537,743	490,977	488,335
Plastic	1,913,224	1,852,553	1,848,889	1,866,024
Wood	1,153,494	1,007,451	911,403	1,005,037
Other	21,837	18,564	19,929	18,008
Total	9,595,910	9,242,013	9,102,150	9,265,342

*as declared by obligated business Sept 2011

3.11 Historically, the level of obligation has grown or fallen (as in 2008-9) approximately in line with the growth in packaging arising and major changes in the level of obligated tonnage have been the result of regulatory changes (to bring more packaging into scope of the Regulations), rather than of changes in the market. Therefore, we expect the obligated tonnage to continue to track packaging waste arisings, and so plan to use the same growth rates for both.

Table 6 Predicted growth rates in obligated tonnage(%)

	2013	2014	2015	2016	2017
Paper	0.5%	0.5%	0.5%	0.5%	0.5%
Glass	1.0%	1.0%	1.0%	1.0%	1.0%
Alu'm	1.0%	1.0%	1.0%	1.0%	1.0%
Steel	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
Plastic	2.5%	2.5%	2.5%	2.5%	2.5%
Wood	0.5%	0.5%	0.5%	0.5%	0.5%
Other	0.0%	0.0%	0.0%	0.0%	0.0%

3.12 Applied to the 2011 baseline, the growth rates above result in the projected levels of obligated tonnage in Table 7.

Table 7: Total level of obligated tonnage 2011-2017 (tonnes)

	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Paper	3,661,482	3,679,790	3,698,189	3,716,679	3,735,263	3,753,939
Glass	2,120,059	2,141,260	2,162,672	2,184,299	2,206,142	2,228,204
Alu'm	157,698	159,275	160,867	162,476	164,101	165,742
Steel	485,894	483,464	481,047	478,642	476,248	473,867
Plastic	1,894,015	1,941,365	1,989,899	2,039,647	2,090,638	2,142,904
Wood	1,005,037	1,010,062	1,015,113	1,020,188	1,025,289	1,030,416
Other	18,098	18,098	18,098	18,098	18,098	18,098
Total	9,342,282	9,433,313	9,525,885	9,620,029	9,715,779	9,813,169

Q2. In your view, are the predictions for obligated tonnage reasonably accurate?

Are you aware of any other factors which may affect the levels of obligated tonnage reported?

Please provide evidence to support your answer, so we are in a position to adjust our figures as necessary.

Aluminium

3.13 Discussions with the Advisory Committee on Packaging have indicated that the proposals in this consultation are challenging, but are achievable. However, within this assessment there is a caveat regarding the use of aluminium in composite materials

3.14 Composite materials are defined as those which 'are not easily separable by hand' and include applications, such as liquid carton board (e.g. tetra-pak) or tubes (toothpaste).

3.15 When assessing the overall flow of material onto the market, the UK has historically counted all aluminium used, irrespective of the application or format. Therefore, the 16-20kt of aluminium that is used in composite materials is counted as part of the total arising when setting targets.

3.16 Whilst there has been some technological developments which mean that it is technically possible to recover the aluminium from these formats, it has not been demonstrated on a commercial level and so most of this material remains 'unrecyclable'[4]. This means that for these formats the aluminium is "lost" to the packaging system making the achievement of the target more challenging.

3.17 This is compounded by the fact that when calculating their obligation, producers are required to count composite material against the majority material. So for liquid carton board, (which is usually made from around 75% paper, 19% plastic and 6% aluminium) the whole obligation would be counted as paper, and would attract no aluminium obligation. So there is a lower than expected obligation for aluminium in relation to the amount of aluminium used.

3.18 It is proposed that, in line with the practice in other Member States, in future the UK does not count the amount of aluminium used in composite materials in the overall waste arising figure for aluminium. Removal of this fraction would lead to an increase in the overall level of achievement for aluminium recycling (as 16-20k t from the base line waste arisings), but could have the perverse incentive of making these "unrecyclable" formats more attractive as they carry a lower obligation.

Q3. We would welcome respondents views on the proposal to remove composite material from the waste calculations.

[4] For LCB it is possible to recover the fibre, but the plastic and aluminium is lost.

Please provide evidence to support your answer, so we are in a position to adjust our figures as necessary.

4 Options for targets 2013-2017

4.1 The Defra Review of Waste Policy in England[5] committed to consulting on new targets for 2013 – 2017 and exploring the possibility of a new sub-target for glass to divert more material into re-melt applications.

4.2 This is in line with the policy positions set out by the Devolved Governments in their respective strategies.

4.3 The Advisory Committee on Packaging has previously recommended that targets should be set for a minimum of 5 years in order to provide industry with some certainty to inform planning and investment decisions.

Option 1: The minimum option – rolling the existing targets forward

4.4 As a minimum, new targets are required for 2013 onwards to ensure that the UK continues to meet its Packaging and Packaging Waste Directive (94/62/EC), obligations. This can be achieved by rolling forward the 2012 targets for each of the materials, as illustrated below.

Table 8: Tonnages delivered by 2012 targets rolled forward

	Targets (%)	Tonnage delivered by targets in 2012	Tonnage delivered by targets in 2017
Paper	69.5%	2,544,730	2,608,988
Glass	81.0%	1,717,248	1,804,845
Aluminium	40.0%	63,079	66,297
Steel	71.0%	344,984	336,446
Plastic	32%	606,085	685,729
Wood	22.0%	221,108	226,691
Total recycling		6,360,226	6,771,086
Recovery	74.0%	6,913,289	7,359,876

4.5 Under this option, by 2017 the recycling and recovery targets would lead to around an estimated additional 400,000 tonnes being diverted from landfill compared to what is expected to be delivered in 2012. Full details of the tonnages expected to be delivered by these targets, based on the predicted increase in waste arising and obligated tonnage, are included in the accompanying Impact Assessment.

4.6 This option would have the advantage of keeping costs for obligated businesses low, whilst ensuring that the UK continues to meet the EU Directive targets.

4.7 However, without the "demand-pull" from increased targets there will be a market perception that there will be no difficulty in acquiring sufficient evidence to show compliance (i.e. sufficient tonnes of material will be collected and recycled). This is because the required tonnage in PRN/PERNs will not vary significantly from the previous year and so collecting and reprocessing the required amount of packaging waste should be achievable.

[5] http://www.defra.gov.uk/publications/2011/06/14/pb13540-waste-review/

4.8 Historically, in situations where there is an anticipated surplus and a belief that there will be abundant evidence (as for paper and wood which are normally in over-supply) the value of the PRN/PERN falls to a floor price. This has been seen over 2010-11, where the roll-over of targets has led to very low PRN prices.

4.9 This effect may not be felt as strongly in all materials, some of which are more influenced by movements in the global materials markets. However, in general a small annual increase in tonnage required to meet targets would result in market confidence in the ability to comply and in subsequent low prices for evidence (PRN/PERNs).

4.10 Many industry sources have commented that the present low PRN/PERN price is having a detrimental effect on the recycling market. Without the certainty of the income stream from PRN/PERNs there is less incentive for waste management and compliance companies to invest in mechanisms for extracting more packaging waste from the waste stream. Some sources have suggested that for certain recycling sectors a continuation of low prices, and the resulting low revenue, could cause difficulties and may undermine the economics of emerging markets (most notably in plastics).

4.11 In summary, this option would maintain the UK's performance against EU targets, but it would take it no further forward in terms of increasing the sustainability of packaging by promoting greater recycling. It would have limited environmental benefits and may even have unintended negative consequences on reprocessing capacity in the UK.

Option 2 – Higher targets for aluminium and plastic

4.12 The proposal to increase targets post-2012 for specific materials is in line with the recently published Review of Waste Policy for England and the waste strategies of the Devolved Governments.

4.13 In 2010, the UK only recycled 24% of packaging plastics and around 41% of aluminium therefore higher recycling targets are proposed for aluminium, plastic and steel (as shown in Table 1 above) due to the significant environmental benefits they could deliver. Each of these materials has a high carbon impact, and so any increases in recycling rates will have a significant environmental benefit, from a GHG perspective. For aluminium and above all plastics, recycling targets and recycling rates have been lower than for other packaging materials.

4.14 Targets for the other materials will not be increased, though there will be a slight rise in the overall recovery rate to compensate for changes in the base data and provide a margin of tolerance for ongoing compliance with the EU targets.

4.15 Under this option, the targets for paper, glass, steel and wood have not been increased in order to keep the costs to business low. As these materials already have achievement levels above the EU Directive requirement, targets have been held flat so that there is no additional cost in terms of additional PRNs.

4.16 A more detailed analysis of the benefits and costs of this proposed option can be found in the accompanying Impact Assessment (page 19).

4.17 The proposed targets are:

	2012 (as set in current Regulations)		2013		2014		2015		2016		2017	
%	Business targets	To achieve	Business targets	To achieve	Business targets	To achieve	Business targets	To achieve	Business targets	To achieve	Business targets	To achieve
Paper	69.5	63.8	**69.5**	63.8	**69.5**	63.8	**69.5**	63.8	**69.5**	63.8	**69.5**	63.8
Glass	81.0	62.4	**81.0**	62.4	**81.0**	62.4	**81.0**	62.4	**81.0**	62.4	**81.0**	62.4
Alu'm	40.0	39.8	**41.0**	42.8	**42.0**	45.8	**43.0**	48.8	**44.0**	51.8	**45.0**	54.8
Steel	71.0	53.5	**71.0**	53.5	**71.0**	53.5	**71.0**	53.5	**71.0**	53.5	**71.0**	53.5
Plastic	32.0	23.8	**34.0**	27.2	**36.0**	30.6	**38.0**	33.9	**40.0**	37.1	**42.0**	40.3
Wood	22.0	19.2	**22.0**	19.2	**22.0**	19.2	**22.0**	19.2	**22.0**	19.2	**22.0**	19.2
Recovery	74.0	61.2	**75.0**	61.9	**75.0**	61.7	**75.0**	61.6	**76.0**	62.2	**76.0**	62.1
Of which Recycling	68.0	56.3	**69.0**	57.1	**69.0**	57.0	**69.0**	57.0	**69.9**	57.7	**69.9**	57.7

4.18 The proposed targets could achieved by a number of mechanisms, including:

a) Achieved through setting higher statutory targets
b) Achieved through voluntary agreement

Option 2a – Achievement via higher statutory targets

4.19 This option would involve the inclusion of higher statutory targets for these materials in the Regulations without further intervention. This would allow the market to operate, with material being obtained from the cheapest source in order to meet the increased demand for PRN/PERN.

4.20 The above levels of recycling can be achieved through setting statutory targets, implemented through the PRN system.

Option 2b – Achievement via an industry voluntary agreement

4.21 This option would see the implementation of targets as shown in option 1 (EU minimum of flat targets), supplemented with the establishment of responsibility deals for key materials/packaging formats in order to deliver the desired recycling rate.

4.22 The expected responsibility deals would cover, as a minimum:

- Metals: Aluminium and steel cans, aerosols, foil
- Plastic (bottles, non-bottle plastics: pots, tubs, trays)

4.23 In this scenario, the responsibility deal could involve the key stakeholders (those with the largest obligation in the key materials) committing to recycle a proportion beyond their minimum legal requirements. This would mean that as well

as ensuring the recovery/recycling of the minimum required to meet their obligation under the Regulations, companies would seek to support other activities which would lead to increased recycling of the specific material.

4.24 The Impact Assessment models the top 30 companies with the largest obligation participating in a responsibility deal. For aluminium, the top companies account for 75% of the total obligated tonnage, therefore recycling anything above their legal obligation would have a significant impact on the overall recycling rate.

4.25 For plastics however, the top companies only account for 42% share of the overall obligated tonnage and thus the change brought about by these top 30 companies recycling more would be less substantial overall.

4.26 To achieve recycling levels in line with those delivered by higher targets, businesses that joined any responsibility deal would need to recycle significantly beyond their statutory requirement. Analysis in the Impact Assessment suggests that this may be possible in aluminium, but would be more challenging for the plastic sector (see page 21 of Impact Assessment)

4.27 This approach would be in line with the UK Government's preferred approach of using voluntary action where possible, and only using regulation where necessary. This would be a light-touch mechanism that would allow producers scope to find the best, and/or cheapest, way to achieve the additional levels of recycling.

4.28 However, as this approach would be voluntary there is no guarantee that sufficient producers would be willing to enter an agreement, thereby limiting its potential effectiveness. It would also mean that those who did choose to sign up for a responsibility deal would be at a competitive disadvantage to other companies who had not, and it would create an uneven playing field.

Option 3 - Higher Targets for steel, aluminium and plastic plus split targets for glass

4.29 This option reflects the Government's ambition to be the greenest Government ever and achieve the highest level of environmental benefit. This option also aligns more appropriately with the requirements of the Welsh Governments ambition to become a high recycling society and Zero Waste Nation by 2050; and the Scottish Government's Zero Waste Plan, with overall recycling targets increasing to 70% by 2025.

4.30 The option sees an increase in targets for steel, aluminium and plastic. Targets for these materials are being increased as they have the biggest environmental impact in terms of carbon saving through increased recycling, as does the introduction of a specific target for glass going into re-melt applications.

4.31 This option, as for option 2, can be achieved by a number of mechanisms such as:

a) Setting higher statutory targets plus a split target for glass
b) Voluntary agreement
c) Implementation of a deposit return scheme

Option 3a – achievement of higher recycling rates through higher statutory targets – this is the UK Government's preferred option.

4.32 This option would achieve higher levels of recycling by the introduction of higher regulatory targets plus split targets for glass.

4.33 The proposed targets are:

	2012 (as set in current Regulations)		**2013**		**2014**		**2015**		**2016**		**2017**	
%	Business targets	To achieve	Business targets	To achieve	Business targets	To achieve	Business targets	To achieve	Business targets	To achieve	Business targets	To achieve
Paper	69.5	**65.7**	69.5	**65.7**	69.5	**65.7**	69.5	**65.7**	69.5	**65.7**	69.5	**65.7**
Glass	81.0	**61.7**	81.0	**61.7**	81.0	**61.7**	81.0	**61.7**	81.0	**61.7**	81.0	**61.7**
Aluminium	40.0	**41.0**	43.0	**44.0**	46.0	**47.1**	49.0	**50.2**	52.0	**53.2**	55.0	**56.3**
Steel	71.0	**53.2**	72.0	**53.9**	73.0	**54.7**	74.0	**55.4**	75.0	**56.2**	76.0	**56.9**
Plastic	32.0	**23.7**	37.0	**27.4**	42.0	**31.1**	47.0	**34.8**	52.0	**38.5**	57.0	**42.1**
Wood	22.0	**21.5**	22.0	**21.5**	22.0	**21.5**	22.0	**21.5**	22.0	**21.5**	22.0	**21.5**
Recovery	74.0	**62.4**	75.0	**63.2**	76.0	**64.0**	77.0	**64.8**	78.0	**65.6**	79.0	**66.4**
Of which Recycling	68.10	**57.5**	69.0	**58.2**	69.9	**58.9**	70.8	**59.6**	71.8	**60.4**	72.7	**61.1**

4.34 As for option 2a, this would involve the introduction of higher statutory targets for these materials in the Regulations without further intervention. This would allow the market to operate, with material being extracted from the waste stream by the cheapest mechanism in order to meet the increased demand for PRN/PERN.

4.35 The above levels of recycling can be achieved through setting higher statutory targets.

4.36 Under this option, it is also proposed to increase the Recycling Allocation (the mechanism whereby SME's can calculate their obligation based solely on annual turnover, without the need for assessing the amount of packaging handled)from 29% to 30% for 2013-17.

4.37 Option 3a has the highest NPV and strongest environmental benefits.

Split glass targets

4.38 As mentioned above, glass recycling targets have been met to date, but they remain challenging and rely on aggregates as an end market (for roughly 30%). The amount of recovered container glass destined for uses other than re-melt, including aggregates, has more than doubled since 2005. The way in which glass is collected often dictates its end use.

4.39 Currently, the aggregates market usefully provides a home for poor quality material that otherwise would go to landfill. However, aggregates is an open loop application, and in carbon terms a sub-optimal one (see table below). To achieve the best environmental outcome from the recovery activities, the intention is to encourage more glass to go to re-melt applications and reduce the amount of glass going into aggregates over time.

Table 9: relative carbon benefits of a sample of recycling methods

1 tonne of...	**Saves...**
glass recycled into containers	0.263-0.315t of CO2eq
glass recycled into aggregates	on average 0

4.40 Options to achieve this have been discussed with the Advisory Committee on Packaging and its Targets and Transparency Taskforce, British Glass and other key stakeholders. It was agreed that the most effective way of doing this would be to set sub-targets for glass by end-use, allowing a decreasing proportion of the overall glass target to be met through evidence derived from aggregates.[6] To do so, it is proposed to freeze the amount that can be achieved through aggregates to its 2009 level – approximately 650,000 tonnes.

4.41 The resulting re-melt targets that individual businesses will need to apply to their glass tonnage are as follows:

Table 10 – Proposed re-melt targets for glass, 2013-2017

	2013	**2014**	**2015**	**2016**	**2017**
Tonnage to be achieved through re-melt (t) *	1,093,017	1,110,448	1,128,052	1,145,833	1,163,791
which will require business targets for re-melt at...	63%	63%	63%	64%	64%

4.42 This proposed split in the glass targets could, in fact be applied to all options in order to achieve the same level of environmental gain.

Q4. Do you support the proposed approach to split the glass target in line with end-use and limit the allowable recycling through aggregates?

[6] Other options included sub-targets by colour. This was not pursued because of added administrative and enforcement burdens which were unlikely to deliver a better policy outcome.

Have you got any data which would make our estimate of total tonnages of glass going to re-melt, aggregate or other end-uses more accurate? If so please provide it with your response.

If you are a local authority, a waste management company or a packaging producer, we would welcome your views on our analysis of what this proposal would mean for you, including if there would be any unintended consequences, and the cost assumptions of collections used in our Impact Assessment.

If you are an accredited exporter or reprocessor, please give us your views on the likely impact of this proposal on your business.

Option 3b – achievement of higher recycling rates through voluntary responsibility deals

4.43 This option would be similar to option 2b, whereby the implementation of targets as shown in option 1 (EU minimum of flat targets) would supplemented with the establishment of responsibility deals for key materials/packaging formats in order to deliver the desired higher recycling rate.

4.44 As for option 2b, any responsibility deals would cover, as a minimum:

- Metals: Aluminium and steel cans, aerosols, foil
- Plastic (bottles, carrier bags, non-bottle plastics)

4.45 However, as this option proposes higher targets there may be a need to explore inclusion of further formats (such as plastic film) or targeting other waste streams (such as SME waste).

Option 3c – Achievement via a deposit return system (DRS)

4.46 This mechanism for achievement of the targets has been included in light of responses to the call for evidence for the Defra Waste Review in England. Many individuals, businesses and organisations commented on whether a deposit and return system for beverage containers could have a positive effect on individual consumer behaviour and help to increase recycling rates for certain packaging formats. The Campaign for the Protection of Rural England (CPRE) also published a report advocating the establishment of such a scheme in September 2010, which undertook a detailed cost/benefit analysis of the establishment of such a system in the UK.

4.47 However, representations were also received from retailers, drink manufacturers and packaging manufacturers. A number of them had operations in countries where deposit schemes operate. They raised issues about the cost of establishing such a system in the UK, compared to using the existing collection systems better.

4.48 This option would see the implementation of statutory targets on packaging producers as per in Option 1 above, supplemented by the establishment of a deposit refund system (DRS) for beverage containers.

4.49 A DRS encourages the return of target materials into an organised reuse, recycling or disposal process. Producers typically finance the process through the payment of an administration fee on each item covered by a deposit. Drinks containers are the most common target of DRSs, though economic theory suggests the schemes could be applicable to hazardous materials and other waste streams, subject to transaction costs being minimised. DRSs can encourage recycling and / or reuse of items that are otherwise easy to dispose of with the residual waste or discard as litter.

4.50 A DRS is likely to have a positive impact on the capture rates of material/packaging formats covered by the scheme by influencing consumer behaviour. Some other countries who have established DRS achieve 80% return rates for deposit items. Also, as the deposit items are 'collected separately' much higher quality can be achieved.

4.51 However, a DRS would only cover a fraction of the total packaging market, thereby requiring the maintenance of other forms of collection, such as existing kerbside systems. There would also be a significant set-up cost associated with a DRS, plus an ongoing administration cost. Whilst this would be covered by unclaimed deposits, this would be an additional cost which is likely to fall on consumers.

4.52 Further analysis of costs and benefits of DRS can be found in the accompanying Impact Assessment (page 45).

Overall summary

4.53 The proposed targets, taking into account the de minimis, are based on analysis of the future recycling capacity and potential end markets. They are intended to be achievable for individual materials and **are likely to result in noticeable improvements in the recycling services offered to businesses of all sizes and householders**.

The preferred option is option 3a as this shows the strongest environmental benefits, helps to move waste up the hierarchy, and has the highest NPV. This option of higher targets for steel, aluminium, plastic and a split target for glass will also bring some momentum back into the market which is currently very flat, and will drive up not only recycling rates but also increase the amount and availability of recyclable material that is available for reprocessing. Investment from PRNs finance improvements in the collection and reprocessing infrastructure across the UK, and increasing packaging recycling targets would demonstrate our commitment to the Green Economy. Revised packaging targets are a key element of the Waste Review in England and demonstrate the commitment to be the "greenest Government ever". Packaging is what people most notice in their bins, and higher recycling targets on packaging producers would help increase the amount of packaging that is recycled.

4.54 **Under this option, by 2017 the new recycling targets would lead to an additional 700kt being diverted from landfill compared to 2012, equivalent to 1m t C02.**

Table 11: Tonnages delivered by targets

	Tonnage expected to be delivered by targets in 2012	Tonnage delivered by targets in 2017 (preferred option)
Paper	2,544,730	2,608,988
Glass	1,717,248	1,804,845
Aluminium	63,079	91,158
Steel	344,984	360,139
Plastic	606,085	1,221,455
Wood	221,108	226,691
Material specific recycling	5,497,235	6,313,276
Overall recycling	6,360,226	7,132,211
Recovery	6,913,289	7,752,403

Q5. Do you support the Government's preferred option?

Please indicate your views on the proposed increases to specific materials targets.

Have you got any data which would support your position, please provide it with your response.