

EXPLANATORY MEMORANDUM TO
THE PRODUCER RESPONSIBILITY OBLIGATIONS (PACKAGING WASTE)
REGULATIONS 2005

2005 No. 3468

1. This explanatory memorandum has been prepared by the Department for Environment Food and Rural Affairs and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

2. Description

- 2.1 Three consultations were undertaken in 2005 on: timing of applications for accreditation as a reprocessor or exporter in 2005; measures to increase the level of obligated tonnage; and meeting Directive targets in 2008. This instrument therefore amends the current legislation as a result of consultation and consolidates the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 S.I. 1997/648 (“the 1997 Regulations”) with the subsequent amending statutory instruments as a simplification measure for better regulation.

3. Matters of special interest to the Joint Committee on Statutory Instruments

- 3.1 The Producer Responsibility Obligations (Packaging Waste) Regulations 2005 (“the 2005 Regulations”) are not new, but a consolidation of the 1997 Regulations with the subsequent amending statutory instruments (see paragraph 4.1). Changes resulting from the 3 consultations this year are being made to the Regulations at the same time.

4. Legislative Background

- 4.1 The 2005 Regulations consolidate the 1997 Regulations and the amending statutory instruments from 1999, 2000, 2002, 2003 and 2005 (see Annex 1 for further details).
- 4.2 The 2005 Regulations are made under the ‘producer responsibility’ powers in sections 93-95 of the Environment Act 1995 and section 2(2) of the European Communities Act 1972. Section 2(2) of the European Communities Act was used in 1999 (SI 1999/3447) to transpose part of Article 13 (information for users of packaging) of the Directive. A regulation was inserted into the 1997 Regulations to provide for the Secretary of State (now the “appropriate authority” in the 2005 Regulations) ensuring that users of packaging obtain the information about the matters that are set out in Article 13 of the Directive. This provision accompanied a requirement on certain producers to inform consumers about these matters. Under section 93(2) of the Environment Act 1995 there is a statutory requirement to consult with stakeholders that are likely to be affected by the Regulations. There were public consultations before the 1997 Regulations were made and also before all of the subsequent amendments were made. As mentioned above, this piece of legislation also includes changes, which have been made following public consultations this year.

4.3 The 2005 Regulations will implement the requirements of Council Directive 94/62/EC on packaging and packaging waste as amended by Council Regulation (EC) No 1882/2003, Council Directive 2004/12/EC and Council Directive 2005/20/EC (“the Directive”). The Directive sets new packaging recovery and recycling targets for Member States to meet by 31 December 2008. The requirements of the Directive will have been transposed once the 2005 Regulations are in force. A transposition note is attached as Annex 2.

5. Extent

5.1 The 2005 Regulations extend to Great Britain.

6. European Convention on Human Rights

6.1 The Minister for Local Environment, Marine and Animal Welfare has made the following statement regarding Human Rights:

In our view the provisions of the Producer Responsibility Obligations (Packaging Waste) Regulations 2005 are compatible with the European Convention on Human Rights.

7. Policy background

7.1 The Directive came into force in 1994. It aims to harmonise the management of packaging waste and prevent or reduce the impact of packaging and packaging waste on the environment by setting recovery and recycling targets whilst avoiding obstacles to trade and the distortion and restriction of competition within the Community.

7.2 Packaging Directive (2004/12/EC) amending the Directive was published last year and set recovery and recycling targets to be met by December 2008. The new targets are:

Minimum recovery	60%
Recycling	55% - 80%
Differentiated material-specific recycling targets of:	
Glass	60%
Paper/board	60%
Metals	50%
Plastics	22.5%
Wood	15%

7.3 The Directive was originally implemented by (i) the 1997 Regulations (as amended); and (ii) by the Packaging (Essential Requirements) Regulations 2003 (as amended).

7.4 The 2005 Regulations set annual business targets for recovery and recycling of packaging waste designed to enable the UK to meet the Directive targets. Any business handling more than 50 tonnes of packaging and with a turnover of more than £2 million is obligated if it is involved in manufacturing raw materials for packaging;

converting materials into packaging; filling packaging; selling packaging to the final user, leasing out packaging or importing packaging/ packaging materials into the UK.

- 7.5 The UK Government and packaging industry developed a market based system to achieve low cost compliance with the Directive targets. Obligated businesses are required to purchase Packaging Waste Recovery Notes (PRN) and Packaging Waste Export Recovery Notes (PERNs) from accredited packaging waste reprocessors and exporters, respectively, as evidence that they have complied with their obligations to recover and recycle specified tonnages of packaging waste. Reprocessors and exporters are accredited by the appropriate Agency and only accredited reprocessors or exporters can issue PRNs or PERNs.
- 7.6 A producer may comply with the requirements of the 2005 Regulations individually or it may choose to register with a packaging compliance scheme. When a producer joins a scheme, the scheme takes on the producer responsibility obligations that the producer would have had but for its membership of the scheme.
- 7.7 The Government consulted this year on a number of changes designed to improve the workings of the 1997 Regulations and to spread the obligation more widely amongst business and thereby reduce the level of the business targets. The majority of these changes were the subject of recommendations from the Advisory Committee on Packaging (ACP). The ACP is a body which represents the packaging industry and was appointed by Ministers to monitor the effectiveness of the 1997 Regulations and advise Government as and when changes are needed. The ACP also made recommendations in respect of the majority of changes made to the 1997 Regulations, particularly in 2003, and also many of the proposals that the Government consulted on this year. Some changes, however, are being introduced by Government with a view to simplifying the provisions of the 1997 Regulations (e.g. the simplification of data provisions for small producers).
- 7.8 The following changes are being made to the 2005 Regulations this year –
- a. revised recovery and recycling targets for 2006 to 2008 and indicative targets for 2009 and 2010 have been included. It was necessary to amend the targets following changes to underlying data (in particular the amounts of packaging entering the UK waste stream) used to calculate the targets that were published in 2003 since they would no longer achieve the Directive targets in 2008. However, the targets also needed to be revised as a result of other changes being made this year, i.e. those designed to bring more businesses (such as lessors, licensors, pub operating companies and companies operating similar business models (see paragraphs 7.8.c. and 7.8.e. below)) within the scope of the 2005 Regulations. By bringing more businesses into the scope of the 2005 Regulations, the packaging they handle will be subject to obligations too. A higher level of ‘obligated’ tonnage means that recovery and recycling targets can be lower than they would otherwise have been, since the requirement to meet Directive targets (and the costs of meeting them) will be spread amongst a larger number of businesses;
 - b. the inclusion of the “allocation method”, a system which has been designed to reduce the administrative burdens placed on smaller obligated businesses (i.e. those that handle more than 50 tonnes of packaging and have a turnover of between £2m

and £5m) by, particularly, removing the 2005 Regulations' data provision requirements for these businesses. A number of SMEs considered that they faced disproportionate burdens in terms of their requirement to collect and provide data on the packaging that their businesses handle and to calculate their annual recovery and recycling obligations. The 2005 Regulations have been amended so that the SMEs will be allocated an obligation by the appropriate Agency based on their turnover in the previous year. Once allocated an obligation the business must then purchase recycling PRNs for its total obligation in the main material that it handles. The allocation method is voluntary, but if chosen, it must be adhered to for at least 3 years;

c. the inclusion of provisions to obligate lessors. Lessors lease/hire out packaging, such as wood or plastic pallets, to other companies (lessees) to use, but the ownership of the packaging remains with the lessor. Since the packaging is owned by the lessor, but used by the lessee, to date, there has not been a full obligation carried out on the packaging, i.e. part of it, the pack/filling (37%) and selling (48%) obligations, have been missing. The changes to the Regulations will ensure this is no longer the case as the lessor will be required to pick up the pack/filling (37%) and a new 'service provision' (48%) activity for all first trip leased packaging;

d. the inclusion of a provision to obligate all imported transit packaging that will end up in the UK waste stream (irrespective of whether it is being, or is capable of being, reused) unless it can be shown that a similar type/amount has been exported. This is to correct the distortion caused by such imported packaging often arising in the UK waste stream but obligations being avoided;

e. the inclusion of provisions to ensure that obligations extend to licensors, pub operating companies and companies operating under similar business models to franchisors. These businesses will be obligated for certain packaging bearing their trade mark or associated with goods that bear their trade mark or provided an agreement between themselves and their non-obligated (i.e. do not meet the threshold tests in the 2005 Regulations) licensees or tenanted pubs;

f. the introduction of 'conditional approval' to the 2005 Regulations. The 2005 Regulations have been amended to enable the Secretary of State to grant conditional approval to a compliance scheme which may have failed to meet its targets, but has put forward an acceptable reason for this failure. In such circumstances, the Government may not wish to grant full approval but would not wish to simply allow the scheme to continue as though no failure has occurred. A scheme granted conditional approval must adhere to a set of requirements specified in the 2005 Regulations and will be subject to additional Agency monitoring. The Agency are entitled to charge a cost recovery fee for this work (and the fee is set out in paragraph 7.9.c. below);

g. the inclusion of a provision which requires compliance schemes and large producers to submit their operational plans to Defra or the Scottish Executive, as well as the relevant Environment Agency (which is the current obligation);

h. the removal of the 'reasonable steps' provision for schemes and producers. This provision has been removed not only because of the uncertainty that the term has generated, but also because experience in 2001, and again in 2004, has shown that it

could jeopardise the UK's ability to meet packaging targets, particularly when the targets become more challenging for producers to meet;

i. the requirement for producers to provide operational plans has been amended so that only those producers who handle more than 500 tonnes of packaging now need to do so. The 1997 Regulations required all producers with a turnover above £5 million to provide an operational plan. It is estimated that the number of businesses which will need to provide an operational plan will fall from 463 at present to 110 in 2006;

j. simplification of provisions relating to mid year changes in a group of companies' membership. The 2005 Regulations have been amended at industry's request so that we move away from a situation where a group's recovery and recycling obligations are split mid year between two groups of companies. The obligation will remain with the first group for the whole year, irrespective of any changes. Likewise, the provisions relating to compliance scheme mid year changes have been simplified;

k. the introduction of a provision which will enable the Agencies to serve notices on schemes, reprocessors or exporters;

l. the removal of the 28 day notice period for suspending the accreditation of reprocessors and exporters. Agencies will now be able to remove the PRN or PERN books at the start of the 28 day notice period, pending appeal and/or further investigation, which means that reprocessors or exporters will not be able to issue PRNs or PERNs during this time; this addresses a difficulty that arose in 2004 when one reprocessor was suspended (and subsequently prosecuted for fraud) yet continued to issue PRNs;

m. the provisions relating to 'carry over' of PRNs and PERNs to the following year have been amended to clarify that these PRNs/PERNs only relate to packaging waste delivered to a reprocessor or exporter in December. This has always been the case in practice (since 1997), but it was suggested that the previous wording in the 2003 statutory instrument amending the 1997 Regulations could be interpreted in a different way;

n. the packaging handled threshold test has been amended to require producers to consider the amount of packaging they handle across the UK (i.e. including Northern Ireland). This amendment will ensure that all companies who handle more than 50 tonnes of packaging on a "UK wide" basis will be obligated regardless of the location of their business(es) within the UK;

o. the transposition of the amended definition of packaging and the requirement that if recycling is to be carried out in overseas recycling plants, it should be carried out in conditions that are "broadly equivalent" to those in the EU (article 6(2)) inserted into the Directive by the Council Directive 2004/12/EC. The 2005 Regulations require exporters of packaging waste to demonstrate that the requirements of Article 6(2) have been met in relation to each of the sites to which they propose to export packaging waste; and

p. the provisions relating to charities have been amended so that whilst they are still exempt from the producer responsibility obligations, they can now become an accredited reprocessor and/or exporter if they so wish.

7.9 Section 94(5) of the Environment Act 1995 requires the Secretary of State, in making provision for fees, to have regard to the desirability of securing that the fees are sufficient to meet the costs and expenses of the Agencies in the performance of their functions. The following fees, which are cost-recovery fees, have been included in the Regulations –

a. the inclusion of a late registration fee. Producers that register after the 7 April, via a compliance scheme will be required to pay an additional fee of £110;

b. the inclusion of a fee for exporters who wish to add further overseas reproducers to their accreditation mid-year. Exporters will be required to pay £110 each time they amend their list of overseas reproducers;

c. the inclusion of a fee for schemes granted conditional approval (see paragraph 7.8.f. above). The fee is based on a scheme's obligation as follows –

- up to 24,999 tonnes recovery obligation - £1,540;
- from 25,000 tonnes up to 249,999 tonnes recovery obligation - £2,310;
- or
- over 250,000 tonnes recovery obligation - £3,080.

8. Impact

8.1 A three-part Regulatory Impact Assessment is attached to this memorandum at Annex 3.

8.2 The impact on the public sector is negligible.

9. Contact

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Annex 1

Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (S.I. 1997/648)

Producer Responsibility Obligations (Packaging Waste)(Amendment) Regulations 1999 (S.I. 1999/1361)

Producer Responsibility Obligations (Packaging Waste)(Amendment)(No 2) Regulations 1999 (S.I. 1999/3447)

Producer Responsibility Obligations (Packaging Waste)(Amendment)(England and Wales) Regulations 2000 (S.I. 2000/3375)

Producer Responsibility Obligations (Packaging Waste)(Amendment) (England) Regulations 2002 (S.I. 2002/732)

Producer Responsibility Obligations (Packaging Waste)(Amendment)(Wales) Regulations 2002 (S.I. 2002/831 (W 93))

Producer Responsibility Obligations (Packaging Waste)(Amendment)(Wales) Regulations 2003 (S.I. 2003/3238 (W 318))

Producer Responsibility Obligations (Packaging Waste)(Amendment) (England) Regulations 2003 (S.I. 2003/3294)

Producer Responsibility Obligations (Packaging Waste)(Amendment)(England and Wales) Regulations 2005 (S.I. 2005/717)

Producer Responsibility Obligations (Packaging Waste) Amendment (Scotland) Regulations 2000 (S.S.I. 2000/451)

Producer Responsibility Obligations (Packaging Waste) Amendment (Scotland) Regulations 2002 (S.S.I. 2002/147)

Producer Responsibility Obligations (Packaging Waste) Amendment (Scotland) Regulations 2003 (S.S.I. 2003/613)

Producer Responsibility Obligations (Packaging Waste) Amendment (Scotland) Regulations 2005 (S.S.I. 2005/271)

THE PRODUCER RESPONSIBILITY OBLIGATIONS (PACKAGING WASTE) REGULATIONS 2005 TRANSPOSITION NOTE

MEMORANDUM SHOWING IN RELATION TO ENGLAND, WALES AND SCOTLAND THE METHOD OF IMPLEMENTATION OF COUNCIL DIRECTIVE 94/62/EC ON PACKAGING AND PACKAGING WASTE

The Producer Responsibility Obligations (Packaging Waste) Regulations 2005 transpose Council Directive 94/62/EC as amended by Council Regulation (EC) No 1882/2003, Council Directive 2004/12/EC and Council Directive 2005/20/EC (“the Directive”), with respect to England, Wales and Scotland.

Background

The Directive was originally published in the Official Journal on 20 December 1994. It aims to harmonise the management of packaging waste and prevent or reduce the impact of packaging and packaging waste on the environment and set recovery and recycling targets whilst avoiding obstacles to trade and the distortion and restriction of competition within the Community.

Article 6(1) of the Directive set packaging waste targets to be met by June 2001 of 50%-65% recovery, 25%-45% recycling, and 15% recycling of specific materials. The Directive targets were implemented by the Producer Responsibility Obligations (Packaging Waste) Regulations 1997.

Article 6(3)(b) of the Directive requires that new targets be set every 5 years for the next 5 year period. Directive 2004/12/EC, which amends the Directive, was published in the Official Journal on 18 February 2004 and Article 6(1) set new recovery and recycling targets for member states to meet by 31 December 2008. The new targets are:

Minimum recovery	60%
Recycling	55% - 80%
Differentiated material-specific recycling targets of:	
Glass	60%
Paper/board	60%
Metals	50%
Plastics	22.5%
Wood	15%

The targets were initially transposed in 2003 in the Producer Responsibility Obligations (Packaging Waste)(Amendment)(England) Regulations (SI 2003/ 3294). However, following recent changes to underlying data used to calculate the targets for 2006, 2007 and 2008 that were published in 2003 (in particular the amounts of packaging entering the UK waste stream) the existing business targets in the

Regulations no longer achieve the Directive targets in 2008. Following a public consultation, therefore, new targets have been included in the 2005 Regulations.

Article 3(1) of the Directive defines packaging and includes a list of illustrative examples to accompany the definition.

Article 6(1) of the Directive, as mentioned above, sets new recovery and recycling targets for Member States to meet by 31 December 2008.

Article 6(2) states that packaging waste exported out of the Community shall only count towards packaging targets if there is sound evidence that the recycling took place under conditions that are 'broadly equivalent' to those prescribed by Community legislation.

The details of how these requirements have been transposed in the 2005 Regulations in relation to England, Wales and Scotland are set out in more detail in the table below.

Directive Articles	Objectives	Implementation	Responsibility
Article 3(1)	The definition of packaging has been expanded to further clarify which items are and are not packaging, to ensure that all member states are treating items in the same way. Annex 1 includes an illustrative list of examples of packaging and non-packaging items.	Regulation 2 of the 2005 Regulations implements Article 3(1) by stating that packaging has the meaning given to it in Article 3(1) of the Packaging Directive.	Secretary of State
Article 6(1)	Requires member states to take the necessary measures to recover and recycle sufficient packaging waste in order to attain the targets set out in this Article of the Directive (as amended by Council Directive 2004/12/EC) by 31 December 2008.	Regulation 4 of the Producer Responsibility Obligations (Packaging Waste) Regulations 2005 implements article 6(1) and places producer responsibility obligations on producers of packaging (i.e. those that meet the threshold tests in the Regulations). Regulation 5 provides	Secretary of State Scottish Executive

		<p>that where a producer joins a registered compliance scheme he is exempt from complying with his producer responsibility obligations for the relevant year.</p> <p>Regulation 12(1) provides that an operator of a scheme is required to carry out the recovery and recycling obligations that its members would have had but for their membership of the scheme.</p> <p>Schedule 2 presents the targets that UK businesses are required to meet in order for the UK as a whole to meet the Directive targets.</p>	
Article 6(2)	<p>Member states are required to ensure that packaging waste exported out of the Community shall only count for the achievement of the targets in Article 6(1) if there is sound evidence that the recovery and/or recycling operation took place under conditions that are broadly equivalent to those prescribed by the Community legislation on the matter.</p>	<p>Regulation 24 of the 2005 Regulations implements Article 6(2) by stating that where an application is made for accreditation as an exporter and relates to one or more reprocessing sites outside the European Community, that the requirements of Article 6(2) of the Directive have been met in respect of each such site.</p>	<p>Secretary of State Scottish Executive</p>



Regulatory Impact Assessment of Changes to the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended)

Options for obligating leased, franchise and imported transit packaging

Part 1

Department for Environment, Food and Rural Affairs
Scottish Executive
Welsh Assembly Government

November 2005

Contents

Chapter	Page
Contents	12
List of Tables	13
Executive Summary	15
1. Introduction	17
2. Proposals	21
<ul style="list-style-type: none">• Title of proposal• Purpose and intended effect of measures• Risk assessment	
3. Options	29
4. Benefits	33
<ul style="list-style-type: none">• Economic• Environmental• Social	
5. Costs	36
<ul style="list-style-type: none">• Economic• Environmental• Social	
6. Equity and fairness	43
7. Consultation with small business: the Small Firms Impact Test	48
8. Competition assessment	49
9. Enforcement and sanctions	50
10. Monitoring and review	51
11. Consultation	52
12. Summary and recommendations	53
13. Annex A	56
14. Annex B	61

List of Tables

Table 1:	Totals in UK waste stream 2006-2008, published November 2003
Table 2:	Packaging arising in the UK waste stream 2006-2010
Table 3:	Estimated leased packaging 2006-2008 (based on 2004 and extrapolated forward) – using present growth rates
Table 4:	Potential additional obligated tonnages of leased packaging under Government preferred option
Table 5:	Potential additional obligated tonnages of leased packaging following consultation
Table 6:	Potential additional obligated tonnages of leased packaging following consultation, with small reductions in 2006 and 2007
Table 7:	Additional obligated tonnages of fast food packaging, 2006-2008
Table 8:	Additional obligated tonnage of tenanted pub packaging, 2006-2008
Table 9:	Additional obligated tonnage of tenanted pub packaging, 2006-2008, revised following consultation
Table 10:	Expected tonnages from leased packaging, fast food outlets and tenanted pubs
Table 11:	Costs of obligating lessors and lessees (option 2)
Table 12:	Costs of obligating lessors (option 3)
Table 13:	Costs of obligating fast food outlets (option 2)
Table 14:	Costs associated with obligating tenanted pub chains (option 2)
Table 15:	Company A's obligation (tonnes) in 2004, extrapolated forward to 2008 using current targets in the packaging Regulations and possible new targets
Table 16:	Company A's cost of compliance (£), 2008
Table A1:	Estimated tonnages of leased packaging 2006-2008
Table A2:	Obligated tonnage attributed to lessors based on 48% service provision activity.
Table A3:	Obligated tonnage attributed to lessees based on 37% pack/filling activity

- Table A4: Predicted PRN prices, 2006-2008
- Table A5: Estimated tonnages of franchise packaging, 2006 – 2008
- Table A6: Estimated tonnages of tenanted pub packaging, 2006 – 2008
- Table B1: Possible business targets with higher obligated tonnages from leased and franchise packaging
- Table B2: Possible business targets with higher total in waste stream and higher obligated tonnages from leased and franchise packaging
- Table B3: Possible business targets with higher waste stream total but no increase to obligated tonnages

Executive summary

i. This Regulatory Impact Assessment (RIA) is part 1 of a two part RIA which accompanied a Government consultation document entitled “Consultation Paper on Measures to Increase Obligated Tonnage” published on 30 March 2005. This part considers the impact of changes that will be made to increase the amount of packaging obligated under the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended). The Government will be amending the Regulations to obligate leased packaging, packaging used in franchised operations (or similar arrangements) and imported transit packaging.

ii. Increasing the amount of packaging obligated under the Regulations, will decrease the gap between obligated and non-obligated packaging, thus arguably sharing the burden more equitably between producers. A higher level of obligated packaging will keep business targets lower than they would otherwise have been without the additional obligated packaging. This will reduce the costs for businesses, which do not pick up additional costs because of the proposed changes. These changes may also create a more level playing field for firms to compete. There will also be environmental benefits associated with these changes. For example, obligating leased, imported transit and franchise packaging could encourage producers to think more about the amount of packaging they use, leading to innovation, dynamic efficiencies and minimisation.

iii. The Government has estimated that the additional costs (for example, administration and Agency registration fees) to UK industry as a whole will be minimal because the proposals are merely redistributing costs from one part of industry to another. Therefore, existing businesses will benefit from a reduction in costs, but newly obligated businesses will obviously notice a rise in their costs.

iv. In relation to leased packaging and following agreement from industry, the Government will be amending the Regulations so that a lessor will be obligated for both the pack/filling (37%) and a “service provision” (48%) activity. The total additional cost to industry of obligating lessors in this way for 2006 to 2008 is estimated to be between £237,660 – £280,894.

v. In relation to franchise packaging (and packaging used in similar arrangements) the Government will be amending the Regulations to obligate licensors (i.e. the holding company/head office), which is industry’s and the Government’s preferred approach. This RIA focuses on the costs associated with obligating the six fast food chains and the eight tenanted pub chains identified by WRAP in a study commissioned for the Advisory Committee on Packaging by the Scottish Executive. However, the Government is aware following two consultations on this matter that a number of other businesses will be obligated by these amendments. The additional cost to UK industry of obligating fast food chains and tenanted pub chains is expected to be in the ranges £24,866 - £77,820 and £55,249 - £107,471, respectively.

vi. The Government also put forward a proposal to place an obligation on all imported transit packaging that will end up in the UK waste stream unless it can be shown that a similar type/amount is being exported. The majority of responses to the

consultation paper on this matter were in agreement with the Government's proposal and the Regulations will be amended accordingly. It has not been possible to identify the number of importers that this change will affect, but the Government does not expect the costs to UK industry, associated with this change to be significant.

Regulatory Impact Assessment

1. Introduction

1.1 This Regulatory Impact Assessment (RIA) is part 1 of a two part RIA. This part considers the impact of changes to increase the amount of packaging obligated under the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended) (henceforth “the Regulations”). Part 2 considers changes to simplify the data collection and reporting burden for smaller obligated businesses and the possibility of reducing the turnover threshold in the packaging Regulations from £2 million to £1 million.

1.2 This RIA (part 1 and part 2) accompanied a Government consultation document entitled “Consultation Paper on Measures to Increase Obligated Tonnage” published on 30 March 2005. The consultation paper discussed proposals for increasing the amount of packaging that is obligated by the Regulations with a view to spreading the obligation to recover and recycle packaging waste more widely, in the most cost-effective and fairest way possible and in a way that does not create additional complexity for businesses already obligated. The consultation paper also discussed options for alleviating the data collection and reporting burden on the smaller obligated businesses. All of the proposals consulted upon were intended to enable cost effective achievement of the UK’s 2008 Packaging Directive targets.

1.3 In summary, the main proposals in the consultation paper centred around whether to -

- obligate leased packaging;
- make changes to the application of the regulatory provisions to franchises and similar arrangements e.g. tenanted pubs; and
- simplify the data collection and reporting requirement for smaller businesses obligated under the Regulations (i.e. those with a turnover between £2 million and £5 million).

1.4 The proposals were concerned with changes to existing legislation. In each case the consultation paper put forward one or more options for possible change and a “business as usual” option, which would have meant leaving the Regulations as they are now.

1.5 This RIA presents overall costs and benefits of the proposals consulted upon and, in particular, the costs and benefits associated with the changes being made following consultation, taking into account stakeholders views.

Background

UK Packaging System

1.6 The packaging Regulations obligate businesses which handle more than 50 tonnes of packaging a year and have a turnover in excess of £2 million to carry out recovery and recycling of packaging waste to target levels each year. This is to enable the UK to meet its legally binding targets under the EC Directives on Packaging and Packaging Waste 94/62/EC and 2004/12/EC.

1.7 Obligated businesses, that is “producers”, are required to recover and recycle a specified amount of packaging waste each year which is determined, by

- the amount of packaging they handle;
- the activity they perform on the packaging e.g. pack/filling; and
- the business targets for the respective year.

1.8 Producers do not necessarily have to recycle the waste from the products and materials that go through their businesses. They simply have to provide evidence that an equivalent tonnage of packaging waste has been recovered or recycled. Producers demonstrate compliance with their obligations by purchasing/acquiring Packaging Waste Recovery Notes (PRNs) and Packaging Waste Export Recovery Notes (PERNs). PRNs and PERNs are issued by reprocessors and exporters respectively, which have been accredited by the appropriate Environment Agency (i.e. the Environment Agency in England and Wales, Scottish Environment Protection Agency in Scotland and the Environment and Heritage Service in Northern Ireland). Producers may comply on their own by purchasing PRNs directly from a reprocessor themselves, or they may choose to join a compliance scheme which will carry out all their obligations for them, including purchasing PRNs on their behalf.

1.9 The changes which will be made to the Regulations as a result of the consultation will not actually change how much recycling takes place each year. This is determined by the packaging targets. The changes being made to the Regulations will simply re-distribute the UK packaging recovery obligation amongst a larger number of producers, distributing the burden more equitably.

1.10 The packaging that the Government will obligate as a result of these changes, may at present, not be obligated, but that does not mean that it is not being recovered or recycled and PRNs issued on it; it just means that the producers who use the packaging do not have to register with an Agency and discharge an obligation in relation to that packaging.

1.11 At present, it is unclear exactly how much leased packaging is already recovered and recycled, but in terms of wood pallets the Government understands that the majority of these will already be recycled into chipboard, for example, and likewise plastic pallets are likely to be recycled into new pallets or other products. In relation to packaging handled by fast food outlets, the Government believes that at present most of the packaging is currently sent to landfill. However, the Government has recently been informed that some fast food chains are now looking to develop recyclable packaging which can be sent for recycling. Obligating franchise packaging

could further encourage all of these chains to develop recyclable packaging and send the packaging collected in in-store bins for recycling. Fast food outlets may also consider minimising their packaging if an obligation were placed on it. It is difficult to estimate how much of the packaging handled by tenanted pubs is currently recycled, but it is thought to be only in the region of 10 – 20%.

Packaging Data

1.12 Prior to the consultation the most recently published data on packaging flowing into the UK waste stream were the figures published by Defra on 20 November 2003 (together with the targets for 2004-2008). These figures are shown in Table 1.

Table 1: totals in UK waste stream 2006-2008, published November 2003 (data now overtaken)

	2006	2007	2008
Paper	3,725,652	3,725,652	3,725,652
Glass	2,400,000	2,400,000	2,400,000
Aluminium	141,500	141,500	141,500
Steel	680,860	675,754	670,685
Plastic	1,958,385	2,017,137	2,077,651
Wood	1,403,694	1,403,694	1,403,694
Other	22,000	22,000	22,000
Total	10,332,092	10,385,737	10,441,183

1.13 However, these data have now changed. Work has been carried out by the Advisory Committee on Packaging's (ACP) Data Task Force and Valpak working together with consultants, the Material Organisations and other stakeholders to review the figures for packaging flowing into the UK waste stream, including the assumed growth rates for each material. A separate, thorough review of data was also carried out by British Glass and the figures for glass have been agreed by the ACP and British Glass together. The Government has also asked the ACP for its advice on all the figures relating to packaging arising in the UK waste stream.

1.14 Table 2 below shows the estimates that the Government is using for packaging flowing through to the UK waste stream in 2006-2010 for the purposes of the RIAs.

Table 2: packaging arising in the UK waste stream 2006-2010

	2006	2007	2008	2009	2010
Paper	3,762,909	3,800,538	3,838,543	3,876,928	3,915,698
		+1%	+1%	+1%	+1%
Glass	2,600,000	2,650,000	2,700,000	2,750,000	2,800,000
		+1.9%	+1.9%	+1.85%	+1.8%
Steel	682,575	679,162	675,766	672,387	669,026
		-0.5%	-0.5%	-0.5%	-0.5%
Aluminium	142,915	144,344	145,788	147,245	148,718
		+1%	+1%	+1%	+1%
Plastic	2,079,865	2,121,462	2,163,891	2,207,169	2,251,312
		+2%	+2%	+2%	+2%
Wood	1,180,000	1,191,800	1,197,759	1,203,748	1,203,748
		+1%	+0.5%	+0.5%	0
Other	23,000	23,000	23,000	23,000	23,000
Total	10,471,264	10,610,306	10,744,747	10,880,477	11,011,502

2. PROPOSALS

2.1 The following section of this RIA considers the purpose and intended effect of each measure. This includes sections on: the objective of the change; the background; and a risk assessment. The costs and benefits of each option and, in particular, the changes that will be made following consultation are discussed in sections 4 and 5.

Leased and Internal Supply Packaging

2.2 Proposals on both leased packaging and internal supply packaging were discussed in the Government's "consultation paper on changes to the packaging Regulations" issued in 2003. Responses to the proposals were mixed and whilst many responses could see the merit in obligating this packaging, doubts were raised over, for example, the data contained within the paper. The Department agreed at the time that it was necessary to carry out further work and to check the data before any proposals were taken forward. The consultation paper which this RIA accompanied and this RIA take account of the additional work which has been carried out on this matter.

Internal supply packaging

2.3 The Government identified a number of difficulties associated with internal supply packaging, not the least of which is that the definition of 'packaging' suggests that internal packaging falls outside the packaging covered by the Regulations. If it were possible to obligate this packaging it would in any case be very difficult because the Government has not been able to obtain figures to show what tonnages might potentially be additionally obligated. The only possible option might have been to obligate the seller of the internal supply packaging, but this business will not know what proportion of its production is used internally, used in the normal way (already attracting obligation) or is purchased to be leased out to other businesses, for example. However, the Government considers that internal supply packaging cannot be obligated under the present definition of packaging in the Directive and therefore no proposals were included in the consultation document and no changes are being made to the Regulations on this issue.

PROVISIONS ON LEASED PACKAGING

PURPOSE AND INTENDED EFFECT OF THE MEASURE

Objective

2.4 To increase the amount of packaging obligated by the Regulations to ensure that the cost of achieving compliance with the Directive targets is spread as equitably as possible between producers; could potentially lower the costs of compliance for existing producers by setting lower targets. Obligating leased packaging could encourage producers to think about their packaging – use of it, how they dispose of it - leading to dynamic efficiencies and minimisation.

2.5 All of these points will be achieved by taking steps to ensure that a 100% obligation on leased packaging is picked up, rather than just 15% as now.

Background

2.6 The intention underlying the Regulations is that, in relation to all packaging that flows into the UK waste stream, there should be, as far as possible, identifiable parties who, between them, are fully responsible for the recovery or recycling of that packaging. Ideally, there should be a 100% obligation on all packaging.

2.7 Increasing the amount of packaging obligated by the Regulations is an issue which Government and industry consider highly desirable because an increase in the amount of obligated packaging would mean a reduction in the gap between the total amount of packaging entering the waste stream and the national obligation. The consequence of obligating more packaging is that the obligations are spread more evenly amongst obligated companies; could encourage producers to focus on dynamic efficiency and minimisation of packaging and UK business targets could be lower than they might otherwise be and costs for existing businesses could therefore be lower too (although there are likely to be additional costs for businesses newly obligated as a result of the proposals).

2.8 The Advisory Committee on Packaging's "De Minimis" Task Force (established in the latter half of 2002), examined if it would be possible to increase the amount of packaging obligated by the Regulations without significantly increasing the number of obligated businesses. Putting to one side small businesses¹ and "free riders"² the Task Force concluded that significant quantities of non-obligated packaging could lie within companies' leased and internal supply systems.

2.9 At present, of the 100% obligation that is expected to be declared on packaging items, the 6% raw material manufacturing and 9% converting obligations are being declared, but the 37% pack/filling or 48% selling obligations are not. Where packaging is leased by a company (the lessor), to another company, which uses the packaging (the lessee), no pack/filling or selling obligation is being picked up even though this packaging is placed on the market and flows into the UK waste stream and should therefore be obligated. Obligations are avoided because the Regulations place obligations on businesses who carry out activities, on packaging that they own, and that they supply on to the next stage in the chain or to the final user. Generally, a business that meets these three requirements will be obligated. In the case of leased packaging, the lessor owns it, but the lessee carries out the activity and supplies it on. Thus, at present, neither business is obligated.

2.10 As packaging targets become increasingly difficult to meet and the cost of compliance increases, businesses may try to adopt this model, unless steps are taken to bring this packaging into the obligated total, as intended.

¹ Businesses which do not have a turnover in excess of £2 million and handle 50 tonnes of packaging a year are not obligated by the Regulations. See also Part 2 of the RIA.

² The Advisory Committee on Packaging set up a "Free Rider" Task Force last year to address this issue. The Task Force will be presenting their recommendations to the Committee in due course.

2.11 Leased packaging is generally reusable and obtaining reliable and accurate data on the tonnages of new leased packaging entering the system is difficult. However, prior to going out to consultation in March this year consultants³ were commissioned by the Government to investigate this issue and they provided estimates of leased packaging in 2004. The tonnage identified by the consultants (some 430,000 tonnes) was the total tonnage of leased packaging, however, we could not expect to obligate all of this tonnage since, for example, some of this packaging will be lost to businesses below the de minimis level. The Government therefore reduced this figure by 13%⁴ (to reflect estimated de minimis levels) and by a further 15% to reflect the fact that, as noted above, only the 'missing' 85% (pack/fill and sell obligations) of the possible obligated tonnage can be taken into account. Thus, of the potential total of some 430,000 tonnes in 2004, it was estimated that only 318,000 tonnes might become obligated (430,000 x 87% x 85%).

2.12 When the Government consulted earlier this year Table 3 below shows the estimated tonnage of leased packaging we expected to obligate in 2006 to 2008.

Table 3: estimated leased packaging 2006-2008 (based on 2004 and extrapolated forward) – using present growth rates (Table 2 above)

Year	2004	2005	2006	2007	2008
Leased♣	318,000	321,000	325,000	329,000	332,000

♣ leased is taken to be 52% wood and 48% plastic

2.13 The Government also needed to consider whether, when assessing the impact of this potential additional tonnage, it could count on the full tonnage being declared and obligated. There is a danger that over-estimating the amount of obligated packaging could mean that targets would be set which would not deliver the required level of recycling. In order to allow for some time for new obligations to bed down, the Government reduced the potential tonnage that it believed could be expected to be caught. The Government reduced the tonnages by a factor of 20%/15%/10% in 2006/2007/2008 to allow a margin for error. Thus the figures in Table 4 below were the tonnages put forward to consultation in March 2005 and were used to assess the possible impact of the additional tonnages.

Table 4: potential additional obligated tonnages of leased packaging under Government preferred option

	2006	2007	2008
Leased wood	135,000	11,000	9,000
Leased plastic	125,000	9,000	10,000
Total leased packaging	260,000	20,000	19,000

2.14 However, responses to the consultation document suggested that the tonnages of leased packaging which the Government had expected to obligate could be over-estimates. The Government followed up this matter with interested parties, in particular the businesses that will be obligated by the changes to the Regulations and have revised the estimates accordingly. Discussions with industry have also

³ Increasing the amount of obligated packaging by changing the provisions for leased and internal supply packaging by Ceres Logistics, November 2004.

⁴ On the basis of past experience approximately 13% of packaging is likely to be non-obligated in 2006 – 2008.

highlighted that we will also obligate a small amount of steel packaging. Table 5 below indicates the maximum tonnages we could expect to obligate.

Table 5: potential additional obligated tonnages of leased packaging following consultation

	2006	2007	2008
Leased wood	92,094	921	465
Leased plastic	85,851	1,717	1,752
Leased steel	1,962	-10	-9
Total leased packaging	179,907	2,628	2,208

2.15 The Government appreciates that not all of this packaging will be captured straight away and it could be a couple of years before it is fully obligated. Therefore, the Government has reduced the tonnages we will obligate by 20% in 2006 and 10% in 2007, see table 6 below.

Table 6: potential additional obligated tonnages of leased packaging following consultation, with small reductions in 2006 and 2007

	2006	2007	2008
Leased wood	73,675	10,038	9,767
Leased plastic	68,681	10,130	10,508
Leased steel	1,570	187	185
Total leased packaging	143,926	20,356	20,460

IMPORTS

PURPOSE AND INTENDED EFFECT OF THE MEASURE

Objective

2.16 To increase the amount of packaging obligated by the Regulations to ensure that the cost of achieving compliance with the Directive targets is spread as equitably as possible between producers; could potentially lower the costs of compliance for existing producers by setting lower targets.

Background

2.17 If leased packaging is to be obligated, the Government believes that some consideration needs to be given to the status of imports of transit packaging. The main objective will be to ensure that packaging that ends up in the UK waste stream is, in fact, subject to some form of obligation, preferably throughout the packaging chain. If this does not happen, distortions in the amounts of reported packaging can occur, and this can affect the level of recycling achieved by the targets.

2.18 The point has been made by the Advisory Committee, ACP Task Forces and others that, under the current rules in the Regulations, some imported transit packaging, whether declared as 'being reused' or not, finds its way into the UK waste stream, with no obligation of any kind being taken on it. As noted before, if the UK is to meet the challenging targets in 2008, it is important that there is an equitable

relationship between the amount of packaging that is obligated on the one hand, and the amount of packaging waste arising on the other.

2.19 The Government therefore proposed in the consultation document that there should be changes made to the provisions relating to imported transit packaging of whatever kind.

2.20 Currently, those importing transit packaging for their own use (i.e. which they will discard), or to sell on, are subject to a 100% obligation. The consultation document proposed therefore that the 100% obligation should apply to all imported transit packaging, irrespective of whether it is capable of, or is, being re-used, unless the business can demonstrate to the relevant Agency that the same type and weight of packaging is going out of the UK and not arising in the UK waste stream. The treatment of imported transit packaging would therefore be similar to the treatment now of 'third party exports' where producers who wish to deduct tonnages of third party exports from their obligated tonnage, may do so provided they can demonstrate to the relevant Agency that they have evidence to support this. The following examples explain the change that was proposed further -

(a) if a business imports goods on a wood pallet of a specific size, removes the goods and throws the pallet away, it will be subject to a 100% obligation on that pallet, regardless of whether the pallet was being reused, or was reusable;

(b) if a business imports goods on a pallet of a specific size, removes the goods and returns the pallet to the overseas supplier, then it has no obligation provided that it can show that the pallet (or a similar type/weight of pallet) went back to an overseas supplier.

(c) if a business imports a pallet on a leasing basis, whether it is being reused or not, the business will have a 100% obligation on that pallet unless it can show that the pallet (or same weight, same type of pallet) is being sent back to an overseas destination outside the UK – and therefore not arising in the UK waste stream. It will not be enough to say that the business has passed it to another business in the UK; that tells the Agency nothing about whether the pallet will arise in the UK or in another overseas waste stream.

OBLIGATING PACKAGING HANDLED IN FRANCHISE OR SIMILAR ARRANGEMENTS

PURPOSE AND INTENDED EFFECT OF THE MEASURE

Objective

2.21 To increase the amount of packaging obligated by the Regulations to ensure that the cost of achieving compliance with the Directive targets is spread as equitably as possible between producers; and to lower the costs of compliance for existing businesses by allowing lower targets to be set. This will be achieved by ensuring that some businesses already obligated also take responsibility for packaging used by

their franchisees, tenanted pubs and other businesses affected by similar arrangements.

2.22 The Government proposed amending the Regulations to place the total packaging recovery and recycling obligations on the franchisor and the pub-operating company (and others operating similar business models) in relation to the packaging used by their franchisees, tenanted pubs and other companies, to ensure that the packaging currently avoiding obligation is brought within the scope of the Regulations.

Background

2.23 Under the franchise provisions in the Regulations, it is the owner of the packaging who assumes the recovery obligation. A business operating under a franchise granted by the owner of the business model or brand will have obligations on the packaging it handles if it takes ownership of the packaging (and exceeds the turnover and tonnage threshold tests) but will not if the franchisor retains ownership.

2.24 Packaging used by sub-threshold franchisees escapes obligation, even if the aggregated turnover and usage of all those in the franchise arrangement exceeds the obligation threshold. A similar situation applies to public houses owned by a brewery or pub operating company and which are let to a tenant landlord. For the purposes of the Regulations the tenant landlord is the owner of the packaging he uses and it is he who incurs the recovery obligation should his business reach the turnover and usage threshold. However, the owner company nevertheless retains a large measure of control over how the tenant's premises are operated, especially with respect to the brands to be stocked and the sourcing of that stock. As with franchises, the packaging used by a chain of tenanted premises operating below the threshold currently escapes being obligated. Only if the parent company operates the outlets direct would it become obligated.

WRAP Report

2.25 The Government considered that the present provisions with regard to franchised operations and similar arrangements is an anomaly which ought to be addressed. WRAP⁵ was commissioned to report on how much packaging was being used by the franchised and tenanted pub sectors and how much of that was the subject of recovery obligations. WRAP found that the fast-food sector used between 130,000 and 170,000 tonnes of packaging per year while tenanted pubs generate about 300,000 tonnes of glass waste per year. Lack of publicly-available data prevented WRAP from estimating how much of these volumes escape obligation by virtue of their being used by sub-threshold franchisees and tenant landlords.

Fast Food Companies

2.26 In light of the WRAP report, the Government considers that had the five principal fast food franchises (see WRAP report) been obligated, this could have increased the obligated tonnage by approximately 18,000 tonnes in 2004. 3,000

⁵ The WRAP report is available at <http://www.defra.gov.uk/environment/waste/topics/packaging/index.htm>.

additional outlets could be brought within the scope of the Regulations. The Government believes, however, that the head office should be responsible for the recovery and recycling obligation for the packaging used by the whole group and not the individual outlets. Extrapolating this tonnage forward could result in the following additional tonnages of obligated fast food packaging -

Table 7: additional obligated tonnages of fast food packaging, 2006-2008

	2006	2007	2008
Paper	25,715	669	686
Plastic	1,368	42	44
Total tonnage	27,082	711	731

Tenanted Pubs

2.27 Likewise, the Government concluded prior to publication of the packaging consultation in March this year that placing an obligation on pub companies for the packaging used by their tenanted pubs could bring in an additional 60,000 tonnes of obligated packaging. The government proposed, again, to place the responsibility on the pub operating company rather than on the individual outlets (in this case, some 26,000 outlets). The Government included in the consultation document the following estimates for the amount of additional obligated packaging that could be brought in -

Table 8: additional obligated tonnage of tenanted pub packaging, 2006-2008

	2006	2007	2008
Glass	75,588	1,965	2,036
Paper	12,438	324	332
Steel	3,147	-18	-16
Aluminium	3,026	61	62
Plastic	1,257	39	40
Total tonnage	95,456	2,371	2,454

2.28 However, consultation responses suggested that the consultants may have over-estimated the amount of glass that could be obligated by placing obligations on tenanted pubs. The Government has discussed the matter further with key stakeholders and has concluded that the glass estimate was probably a little over optimistic and the tonnage has been amended as shown in table 9 below.

Table 9: additional obligated tonnage of tenanted pub packaging, 2006-2008, revised following consultation

	2006	2007	2008
Glass	50,000	950	1,019
Paper	12,438	324	332
Steel	3,147	-18	-16
Aluminium	3,026	61	62
Plastic	1,257	39	40
Total tonnage	69,868	1,356	1,437

Other franchisors/ similar arrangements

2.29 There are, however, other businesses which operate through franchised or similar arrangements and the intention would be to capture all the packaging handled by such businesses, not just fast food outlets and tenanted pubs. Obligating all such

companies in the Regulations will mean they will all be on a level playing field and it will also help the UK to meet the Directive targets in 2008.

2.30 Although the overall tonnage of “franchise” packaging escaping obligation is probably significant, the likelihood is that some of it – e.g. the raw material manufacturing 6%, the converting 9% and the filling 37% is already being declared. The Government’s proposals would bring in the ‘missing’ tonnage and the estimates are included in tables 7 and 9 above. The Government does not have figures for all businesses whose packaging might potentially be obligated by its franchise proposals, but assumes that there will be a relatively large tonnage involved.

Risk Assessment – leased, franchise and imported transit packaging

2.31 Our most recent estimates suggest that in 2005 there are 10,280,196 tonnes of packaging waste flowing into the UK waste stream. The amount of packaging currently obligated by the packaging Regulations is 8,895,698 tonnes which equates to approximately 1.4 million tonnes of packaging or 13% not obligated.

2.32 There are several reasons why some packaging is not obligated. For example, businesses which fall below the threshold levels or are “free riders” (i.e. businesses that exceed the threshold levels, but do not register with an Agency, therefore avoiding their obligations). The difference between the obligated tonnage and the tonnage in the waste stream is the reason for the difference in the business targets set in the UK Regulations and the targets set in the Packaging Directive. For instance, the current overall business recovery target in 2008 is 70%, which is needed to meet the Directive target of 60%. In essence those businesses which are obligated have to do a little more to take account of non-obligated businesses.

2.33 The Advisory Committee on Packaging which represents industry and the Government have proposed that the gap between the obligated tonnage and the total in the waste stream should be reduced, by ensuring that those businesses that should be obligated are obligated. This can be achieved by bringing in more obligated tonnage, as was proposed in the Government’s consultation document for leased, franchise and imported transit packaging. Closing this gap would be beneficial for all currently obligated producers because the more packaging that is obligated, the lower the targets need to be for everyone, the lower the costs and the fairer the system.

2.34 The changes discussed in this document, following the consultation, should create a more level playing field for those companies which are competing in the same sectors. This is because under the current structure of obligation some businesses in one sector may bear the costs of obligation while others do not, simply because of the way they have set up their business arrangements. The changes would remove this market distortion, be more equitable, expand the obligation and reduce targets.

3. OPTIONS

Leased Packaging

3.1 3 options were put forward in the “Consultation Paper on Measures to Increase Obligated Tonnage” published in March 2005 -

Option 1 - “business as usual” i.e. no change to the current Regulations in terms of leased packaging.

3.2 This approach would fail to bring leased packaging into obligation, therefore would not help to reduce the gap between obligated and non-obligated tonnage. Nor would it contribute to spreading the burden amongst a wider population of businesses or lowering targets.

Option 2 – place on the lessor -
a new “service provision” activity of 48% and an obligation to provide to their customers (i.e. those to whom they lease the packaging), data on e.g. -

- (a) the proportion of the packaging that is new and the proportion that is being reused; and
- (b) the weight of the new packaging items; and

place on the lessee -
a pack/filling obligation of 37% in relation to those packaging items that are new (packaging that is being reused is subject to the reuse provisions currently in the Regulations, and can be excluded from the business's packaging handled unless imported).

3.3 This option, would obligate the leased packaging and might be seen to be fair, as the lessor takes on the service provision activity and the lessee picks up the pack/filling obligation (the activity they in fact carry out). However, there are difficulties with this option in terms of obtaining data, monitoring and enforcement, and in terms of ownership (since the business would not own the packaging).

Option 3 - place on the lessor
a new “service provision” activity of 48% and a pack/filling obligation of 37%.

3.4 This option would obligate leased packaging and enable the 85% obligation not currently being declared to be taken. This option would also keep data provision as simple as possible. The Government favoured this option because it is the most feasible and least administratively burdensome approach to bringing in an additional tonnage; it would have a positive effect on the targets; and it is the simplest option from the data perspective.

Action based on consultation responses

3.5 The Government sought views from stakeholders on the 3 options discussed above and posed three questions in the consultation document. The first question asked stakeholders to consider whether they agreed with the Government's proposal that the lessor should pick up both the pack/fill (37%) and service provision (48%) activity for all first trip leased packaging. 86% of the 65 responses to this question agreed with the Government's preferred approach, only 14% did not agree. The second asked stakeholders if they would prefer the lessor to be responsible for the 48% service provision obligation together with an obligation to provide packaging data to the lessee; and that the Regulations should be changed to provide for the lessee taking a pack/filling obligation. The Government received 60 responses to this question and 85% were not in favour of this approach, only 15% were. The final question asked whether the Government should leave the Regulations as they are now i.e. do nothing. Again, the Government received 60 responses in reply to this question 23% of responses agreed that the Government should not amend the Regulations, whilst 77% felt that the Government should take action in relation to leased packaging.

3.6 It is clear from the responses to the consultation that the Government must amend the Regulations to obligate leased packaging which is currently avoiding obligation and respondents' preferred approach is to obligate lessors for both the pack/fill (37%) and service provision (48%) activities. The Regulations will be amended accordingly. In light of this, the Government has met with some of the lessors likely to be affected by these changes, to discuss the implications of the new Regulations on their business.

Imported Transit Packaging

3.7 2 options were put forward in the consultation paper -

Option 1 - "business as usual" i.e. no change to the current Regulations in terms of imported packaging.

3.8 This approach would fail to obligate imported transit packaging that enters the UK waste stream, and would therefore not reduce the gap between obligated and non-obligated tonnage. Nor would it contribute to spreading the burden amongst a wider population of businesses or lowering targets.

Option 2 – place an obligation on all imported transit packaging that will end up in the UK waste stream (irrespective of whether it is being, or is capable of being, reused) unless it can be shown that a similar type/amount is being exported.

3.9 The Government proposed amending the Regulations to place an obligation on all imported transit packaging and this option was the Government's preferred approach.

Action based on consultation responses

3.10 The Government posed one question on this matter in the consultation document and asked industry to consider whether or not they agree with the proposal to put an obligation on all imported transit packaging that will end up in the UK waste stream (irrespective of whether it is being, or is capable of being, reused) unless it can be shown that a similar type/amount is being exported. The Government received 63 responses to this question, of which 89% agreed that an obligation should be placed on all imported transit packaging, 9% were against and 2% put forward an alternative suggestion. A large majority were obviously in favour of the Government's preferred approach to obligate this packaging, therefore the Regulations will be amended accordingly.

Franchises

3.11 2 options were put forward in the Government's consultation document -

Option 1 – “business as usual” i.e. no change to the current Regulations.

3.12 This approach would fail to bring into obligation packaging handled in franchise and similar arrangements and would not reduce the gap between obligated and non-obligated tonnage. Nor would it contribute to spreading the burden more fairly amongst a wider population of businesses or lowering targets and costs.

Option 2 - place packaging recovery and recycling obligations on the franchisor and the pub-operating company (and others operating similar business models) in respect of the packaging handled by all their franchisees, tenant pubs and similar businesses, in order to ensure that the packaging currently avoiding obligation is brought within the scope of the Regulations.

3.13 This was the Government's preferred option. The Government proposed clarifying the provisions in the Regulations to ensure that obligations extend to franchising and tenanted pub businesses models and to similar arrangements. Since it appears that the operating relationship between franchisee and franchisor and tenant landlord and the pub-operating company is one to justify the obligation to be placed on the franchisor or tenant landlord or similar, the Government proposed obligating these companies for the totality of the packaging handled by all of the franchisees, tenanted pubs and similar companies operating under similar arrangements.

Action based on consultations responses

3.14 The consultation asked stakeholders to consider which option should be taken forward. 76% of responses were in favour of the Government's preferred approach to obligate franchisors and the pub operating company, only 24% were against.

3.15 Whilst there was majority support for the proposal, comments were made about the complexity and diversity of the kind of business arrangements referred to. In light of the comments received the Government met with some of the businesses

likely to be affected by the franchise proposals, where they re-iterated the comments they made in their responses to the consultation. The Government therefore decided to take account of these comments and amend the proposals to restrict its scope and this should provide greater clarity about which producers would be affected.

3.16 Furthermore, the Government has decided, as a result of consultation with stakeholders, to re-name the types of businesses that this proposal is focussing upon. The Government understands that although the term 'franchise' is widely used, there are many different types of 'franchise' agreements and that there is no single definition of what a franchise is. Therefore using this term may lead to confusion. It is for this reason that the terms 'licensor' has been selected. A pub operating company is now referred to as 'pub operating business'. The Government is therefore intending to obligate sales/supplies of packaging by licensors/pub operating businesses to licensees/tenants currently below the thresholds, which forms part of any agreement between them.

3.17 However, the Government felt that it would be prudent to consult industry on the amended proposals and included a chapter on this matter in the most recent consultation document entitled "Consultation on Meeting Directive Targets in 2008" published in August 2005. This chapter first considered the definitions of 'licensor' and 'pub operating business' and second, discussed what packaging is to be obligated and to whom the proposals refer. The Government put forward 3 questions for stakeholders to consider.

3.18 The first question asked stakeholders to confirm whether the definition of license agreement (and therefore the definition of a licensor) covers all of the cases that the Government intends to obligate under this head, namely businesses that operate "franchise" and similar arrangements. 86% of the 43 responses received, agreed that the definition is appropriate, only 14% did not.

3.19 The second question asked stakeholders to confirm whether the definition of pub operating agreement (and therefore the definition of pub operating business) covers all of the cases the Government intends to obligate under this head, namely pub operating companies. 91% of the 35 responses received agreed that the definition is appropriate, only 6% did not and 3% were uncertain.

3.20 The third and final question asked stakeholders to confirm that that the packaging that should be obligated is that packaging (or packaging materials) supplied by the licensee that bears the trade mark of the licensor or have been purchased by the licensee as a result of the agreement, or in the case of a tenant, that packaging (or packaging materials) that the tenant purchases that are associated with the purchasing obligation. The Government received 44 responses to this question and 84% agreed that the Government was aiming to obligate the right packaging, only 16% did not agree.

3.21 As the majority of industry agree with Government that licensors and pub operating companies should be obligated, the Government will amend the Regulations accordingly. In light of this, the Government has held further meetings with businesses likely to be affected by these changes (or the trade associations which represent them), to discuss the implications of the new Regulations.

4. BENEFITS

4.1 The following section considers the benefits of the options put forward in the consultation document and chapter 3 of this RIA and, in particular, the changes the Government will be making to the Regulations following consultation.

4.2 The “**benefits**” of each option are considered in terms of the following -

- economic;
- environmental; and
- social benefits.

Leased packaging, imported transit packaging and franchise packaging

“Business as usual”

4.3 A “business as usual” option was put forward for leased, franchise and imported transit packaging. A “business as usual” approach would leave the current Regulations and the associated environmental benefits as they are now. The obligation which could have been picked up by lessors, importers and franchisors would continue to be avoided leaving a considerable tonnage outside the Regulations.

Economic

4.4 The packaging system would remain as now. Industry would not need to adjust to new provisions in the Regulations; the Environment Agency would not need to monitor and enforce provisions on leased, franchise or imported transit packaging and those businesses that would carry the proposed obligations would continue to avoid costs.

Environmental

4.5 There will be no additional environmental benefits from a “business as usual” approach.

Social

4.6 The Government has not been able to identify any social benefits.

“Place obligations on leased, franchise and imported transit packaging”

4.7 The consultation document and this RIA put forward various options for obligating leased, franchise and imported transit packaging (see Chapter 3 - Options).

Economic

4.8 All of the options (being taken forward – see Chapter 3) will increase the amount of packaging which is obligated under the packaging Regulations. This will decrease the gap between obligated and non-obligated packaging, thus arguably sharing the burden more equitably between producers. A higher level of obligated packaging will lower the business targets for existing businesses. This will reduce the costs for businesses which do not pick up additional costs because of the proposed changes i.e. they do not own or use leased packaging. This may also create a more level playing field for firms to compete on a sectoral basis.

Environmental

4.9 By obligating leased, franchise and imported transit packaging we will potentially encourage businesses to focus more on their packaging (e.g. how much they use) and their own packaging waste (e.g. how they dispose of it). As a result of obligating leased packaging on its first trip, lessors may also review the design of their packaging with a view to extending its life; or they may decide to repair or refurbish an item of packaging, effectively extending its life, where before they may have sent it to landfill or for recycling. A producer's obligation is determined in part, by the amount of packaging they handle, so a producer can save money if they reduce the amount of packaging they handle. Obligating this packaging (and the tonnages are shown in Table 10 below) could encourage producers to minimise their packaging. These proposals could therefore reduce the amount of packaging produced in the first place and, as a result, the amount of waste entering the UK waste stream each year.

Table 10: expected tonnages from leased packaging, fast food outlets and tenanted pubs

	2006	2007	2008
Glass	50,000	950	968
Paper	38,153	992	1,019
Steel	5,109	-28	-25
Aluminium	3,026	3,061	3,062
Plastic	88,475	1,797	1,838
Wood	92,094	921	465
Total tonnage	276,857	4,693	4,327

4.10 The Government has not been able to estimate how much imported transit packaging will become obligated as a result of the changes, but considers it to be significant.

4.11 The changes may also help to combat litter, in relation to franchise packaging and fly tipping in relation to pallets and other leased packaging.

Social

4.12 Waste minimisation and recycling rationale in a work environment may filter into the home environment, leading to more environmentally sustainable practices.

5. COSTS

5.1 The following section considers the “**costs**” of the options proposed in the consultation document and, in particular, the changes that the Government will be making following consultation. The chapter focuses on the level of additional costs that will be placed on producers.

5.2 The additional costs that UK industry will pick up as a result of obligating leased, imported and franchise packaging are

- data collection and administration costs; and
- Agency fees.

Data collection and administration costs

5.3 Following discussion with stakeholders the Government has included estimates for the number of man days that we expect newly obligated businesses to incur as a result of data collection and administration. For the purposes of costing the changes we have assumed that producers will employ consultants to undertake the work required, therefore a man day is estimated to be £500. In practice, however, the producers may employ a consultant in the first year and use their own staff in following years or alternatively their own staff may be expected to carry out the necessary work from year one. The Government estimates that where a company uses its own staff the costs would only be in the range of £125 - £250 per man day. The Government has identified the expected costs for newly obligated producers for the first year i.e. 2006 and then this figure has been reduced by approximately 75% thereafter, because costs to business will decrease once they have become more familiar with the new requirements.

Agency fees

5.4 Some of the producers affected by the new proposals are already registered with an Agency or scheme, for packaging currently handled. However, for the purposes of estimating costs below, if the Government has not been able to identify how many of the companies that the proposals will affect are already registered, we shall assume that all of the newly obligated businesses will need to register. The current registration fees are

- Agency - £768
- Scheme - £558

5.5 The Government put forward to consultation 2 or 3 options for each proposal, including a “business as usual” option.

5.6 The Government has not been able to identify any **environmental costs** or **social costs** for the options that are discussed in this section.

Option 1 – “business as usual”

5.7 For each of the proposals taken forward to consultation for obligating leased, franchise and imported transit packaging industry were given the choice of a “business as usual” option. A “business as usual” approach would leave the current Regulations as they are now and the overall obligation to meet Directive targets in 2008 would continue to be discharged by currently obligated producers and targets would be set on the basis of currently obligated tonnages.

Economic

5.8 As mentioned above a “business as usual” approach would simply mean that the costs incurred in meeting the packaging targets would remain as now with all currently obligated producers rather than those to be classified as lessors, importers and franchisors.

Leased Packaging

Option 2 – obligations for leased packaging to be picked up by lessors and lessees.

5.9 Lessors would pick up a new service provision activity (48%) for the new packaging they lease plus a requirement to provide data on new and used packaging to the users of the packaging. Lessees (users) would pick up a pack/filling obligation (37%) and would have to comply with the other producer responsibility obligations, including the obligation to provide data annually to the relevant Agency.

Economic

5.10 Even though the aim of this option is to obligate additional packaging, we expect the cost to industry overall of this proposal to be minimal because it would only distribute the recovery and recycling obligations differently. Whereas the cost of meeting obligations would be expected to rise for some businesses handling leased packaging, they would fall for those handling little or no leased packaging (because targets would be lower than they would otherwise have been).

5.11 Under this option the Government estimated that collection of data and administration will amount to approximately 10 man days for lessors (of which approximately 1 – 2 days will be needed to calculate and provide data on new and used packaging to the lessees) and 2 days for lessees in 2006 and thereafter 8 and 1.5 man days, respectively. The complexity of this option, in particular the need to provide data to the lessee means that this option was not favoured by Government in the consultation document. Consultants commissioned by the Government to undertake further work on leased packaging identified 21 main players in the leasing market, (although there may be some smaller businesses that might be affected), but it was unable to identify the number of companies that use leased packaging. The costs associated with this option are summarised in Table 11.

Table 11: costs of obligating lessors and lessees (option 2)

	2006		2007		2008	
	Lessors	Lessees	Lessors	Lessees	Lessors	Lessees
Administration and data collections costs (£)	5,000	1,000	4,000	750	4,000	750
Scheme/Agency Fee (£)	558/768	558/768	558/768	558/768	558/768	558/768
Costs (£)	5,558-5,768	1,558-1,768	4,558-4,768	1,308-1,518	4,558-4,768	1,308-1,518
Number of businesses affected	21	Unknown	21	Unknown	21	Unknown
Total Cost (£)	116,718-121,128	Not applicable	95,718-100,128	Not applicable	95,718-100,128	Not applicable
PV of costs 2006-2008⁶	£298,553 - £311,341					

Option 3 – obligations for leased packaging to be picked up by lessors

5.12 Lessors would pick up both the pack/fill (37%) and service provision (48%) activities. This option would remove the need for lessors to provide lessees with data.

Economic

5.13 Placing both obligations on the lessor would mean that lessees would not pick up an obligation, and also that the lessor would not need to supply the lessee with data on new and used packaging. Placing both obligations on the lessor would also reduce the burden placed on the Agencies. Unlike option 2 above (where the Agencies would need to monitor lessors and a potentially very large number of lessees), the Agencies would only need to monitor a small number of lessors. As there is no longer a requirement to provide data to the lessee under this option the Government estimates that the collection of data and administration costs will amount to 8 – 9 man days in 2006 and between 6 – 7 man days thereafter. The costs relating to option 3 are detailed in Table 12, below.

⁶ Costs and benefits are discounted at the Treasury Green book recommended rate of 3.5% to 'present values', so that they can be compared. A mathematical expression is used to calculate discounted present values. Year 0 is the present. Accordingly, the present value, at the middle of year 0, of a payment of £1 made at the middle of year n is given by: $D_n = 1/(1+r)^n$ where r is the discount rate and D_n is the discount factor.

Table 12: costs of obligating lessors (option 3)

	2006	2007	2008
Administration and data collections costs (£)	4,000 – 4,500	3,000 – 3,500	3,000 – 3,500
Scheme/Agency Fee (£)	558/768	558/768	558/768
Costs (£)	4,558 – 5,268	3,558 – 4,268	3,558 – 4,268
Number of businesses affected	21	21	21
Total Cost (£)	95,718 – 110,628	74,718 – 89,628	74,718 – 89,628
PV of costs 2006-2008	£237,660 - £280,894		

Action based on consultations responses

5.14 The Government asked stakeholders to consider whether or not they agreed with its proposal to place both activities on the lessor (i.e. option 3) and 86% of responses to this question were in agreement. Therefore, the Regulations will be amended in accordance with industry's and the Government's preferred approach. The additional costs that lessors would incur (detailed in table 12 above) still stand as we are not aware of consultation responses suggesting otherwise. However, during the consultation process it has become apparent that the tonnage of leased packaging that the consultants had identified as becoming newly obligated were probably an over-estimate. The Government has reduced its estimates accordingly. The revised estimates are taken into account in chapter 6, when looking at the distributional costs associated with this change.

Imported Transit Packaging

Option 2 – place an obligation on all imported transit packaging

5.15 The Government put forward a proposal which would place an obligation on all imported transit packaging that will end up in the UK waste stream (irrespective of whether it is being, or is capable of being, reused) unless it can be shown that a similar type/amount is being exported.

Economic

5.16 Government expects the cost to industry overall of this option to be **minimal** because it will only distribute the recovery and recycling obligations differently. Whereas the cost of meeting obligations would be expected to rise for some businesses handling imported transit packaging, they could fall for those businesses which import little or no packaging.

5.17 The Government is not able to provide an estimate of the number of businesses that this proposal would affect, but estimate that the cost to producers

importing transit packaging could be up to £1,000 (2 man days) for collection of data and administration time in the first year i.e. 2006 and £750 (1.5 man days) thereafter, plus the Agency/scheme fee each year.

Action based on consultations responses

5.18 89% of responses to this proposal agreed with the Government that the Regulations should be amended to obligate imported transit packaging and the Government will make the necessary changes to the Regulations. The Government has still not been able to identify the number of businesses that this change will affect, but responses to the consultation have not suggested that the Government's assumption that additional costs will be minimal, is incorrect.

Franchises

5.19 The Government's intention with respect to franchises is to place the packaging recovery and recycling obligations on the licensor and the pub-operating company (and others operating similar business models).

Economic

5.20 In a similar way to leased packaging we would expect the overall cost change of this proposal to be **minimal** because this proposal will only distribute the recovery and recycling obligations differently. Packaging obligations would be expected to rise for licensors and pub operating companies and business operating under similar arrangements, whereas they would fall for existing producers.

A. Fast Food Outlets

5.21 Looking specifically at the 6 fast food franchises identified by WRAP in their report, the Government estimates that the collection of data and administration costs could range between 3 – 10 man days in 2006 depending on the size of the fast food chain and the type of packaging they handle and thereafter 2.5 – 8 man days. Currently, 5 of the 6 fast food chains register with a scheme or Agency. The costs are summarised below.

Table 13: costs of obligating fast food outlets (option 2)

	2006		2007		2008	
	Existing Registrants	New Registrant	Existing Registrants	New Registrant	Existing Registrants	New Registrant
Administration and data collections costs (£)	1,500 - 5,000	1,500 - 5,000	1,250 - 4,000	1,250 - 4,000	1,250 - 4,000	1,250 - 4,000
Scheme/ Agency Fee (£)	Not applicable	558/768	Not applicable	558/768	Not applicable	558/768
Costs (£)	1,500 - 5,000	2,058 - 5,768	1,250 - 4,000	1,808 - 4,768	1,250 - 4,000	1,808 - 4,768
Number of businesses affected	5	1	5	1	5	1
Cost (£)	7,500-25,000	2,058 -5,768	6,250-20,000	1,808 - 4,768	6,250-20,000	1,808 - 4,768
Total Cost (£)	9,558 – 30,768		8,058 – 24,768		8,058 – 24,768	
PV of costs 2006-2008	£24,866 - £77,820					

B. Tenanted Pub Chains

5.22 The WRAP report also identified 8 large tenanted pub chains five of which currently register with a scheme or an Agency. The Government estimates that the collection of data and administration could range between 5 days for a smaller chain, up to 10 days for a larger chain in 2006 and thereafter 4 days and 8 days respectively. The costs are summarised in Table 14 below.

Table 14: costs associated with obligating tenanted pub chains (option 2)

	2006		2007		2008	
	Existing Registrants	New Registrant	Existing Registrants	New Registrant	Existing Registrants	New Registrant
Administration and data collections costs (£)	2,500 - 5,000	2,500 - 5,000	2,000 - 4,000	2,000 - 4,000	2,000 - 4,000	2,000 - 4,000
Scheme/ Agency Fee (£)	Not applicable	558/768	Not applicable	558/768	Not applicable	558/768
Costs (£)	2,500 - 5,000	3,058 - 5,768	2,000 - 4,000	2,558 - 4,768	2,000 - 4,000	2,558 - 4,768
Number of businesses affected	5	3	5	3	5	3
Cost (£)	12,500 - 25,000	9,174-17,304	10,000 - 20,000	7,674-14,304	10,000 - 20,000	7,674 - 14,304
Total Cost (£)	21,674 – 42,304		17,674 – 34,304		17,674 – 34,304	
PV of costs 2006-2008	£55,249 - £107,471					

Action based on consultations responses

5.23 The majority of responses (76%) agreed with the Government that licensors and pub operating companies should be obligated and the Regulations will be amended accordingly. The costs detailed above in tables 13 and 14 are based on the companies identified in the WRAP report, although the Government appreciates that other companies could be caught by the changes. Consultation responses confirmed that the proposed definitions could indeed obligate additional businesses. For example, it was suggested that rather than fully obligating only eight tenanted pub chains the amended Regulations could in fact obligate 27 companies. Obviously the costs detailed above would also apply to these companies i.e. in 2006 costs would be in the range of £2,500 - £5,000 for an existing registrant and in the range £3,058 - £5,768 for a new registrant.

Summary

5.24 The costs estimated above are the costs that the Government expects to be placed on businesses by amending the Regulations to obligate leased, franchise and imported transit packaging. The costs above have been based on an assumption that consultants will be used for data work and these costs could be substantially reduced if the businesses decided to collect the data themselves rather than employing the services of a consultant; and the Government expects the costs to decrease in later years once producers have become more familiar with the new requirements.

6. Equity and Fairness

6.1 The Regulations have no undue effect on rural areas, racial groups, income groups, gender groups, age groups, people with disabilities, or people with particular religious views.

6.2 The changes being made to the Regulations following consultation aim to increase equity and share the recovery and recycling obligations more fairly than under the current Regulations by including more businesses, for example, by obligating leased packaging.

6.3 The changes aim to increase the amount of packaging obligated under the packaging Regulations. Obligating additional packaging enables UK business targets to be lower than they would otherwise have been, which would lower costs for existing businesses. Clearly, there would be increases in costs for those businesses which would have a higher obligation as a result of the changes. However, in respect of leased and franchised packaging, although there will be costs for the businesses using this packaging, it could be argued that because this packaging has not attracted an obligation for the last seven years, the producers concerned have avoided the costs of compliance during this time.

6.4 Costs for a typical business will depend on the tonnage and type of packaging which becomes newly obligated, the activity which is performed on this packaging, the UK business targets and the costs of recovery and recycling. The Government included estimates in the consultation document for the amount of packaging that would become obligated as a result of the proposed changes. However, consultation responses have suggested that the estimates used by the Government may be too high. The Government has therefore met with those businesses that are likely to be affected by the changes and has reviewed the original estimates. The distributional costs detailed below are calculated using the revised tonnages.

6.5 Summarised below are the distributional costs that we expect to be placed on owners of leased and franchise packaging (see **Annex A** for a full breakdown of costs).

6.6 It is worth noting that all of the costs detailed below will still need to be met by UK industry even if the Government had decided not to take forward the proposals on leased, franchise or imported transit packaging, they will simply be distributed differently. The costs below are the predicted costs of purchasing PRNs for 2006 – 2008, for the tonnage equivalent to that which would become obligated under the options for change. If this tonnage were not obligated the costs highlighted below would remain with existing businesses. All of the changes discussed in this document are aiming to achieve the Directive targets in the fairest and most equitable way.

Leased packaging

Option 2

6.7 Proposed placing a 48% service provision activity on the lessor plus a requirement to provide data to the lessees; and the lessees would be given the 37% pack/filling activity. Therefore, the total additional annual cost to **lessors** (owners of leased packaging) would be -

- £1,606,901 in 2006;
- £1,966,641 in 2007;
- £2,341,122 in 2008.

6.8 21 main players have been identified in the leasing market although there are likely to be other smaller businesses which may be obligated by the proposals. The average cost to the 21 lessors would be -

- £76,519 in 2006;
- £93,650 in 2007;
- £111,482 in 2008.

6.9 In addition, there would also be a cost in relation to the requirement to provide data to their lessees; this information should be readily available. The Government estimate that it could take lessors 1 to 2 man days to collect this data and provide it to the lessees at a cost of £500 – £1,000 per lessor.

6.10 The total additional annual cost to **lessees** (users of leased packaging) would be -

- £1,262,595 in 2006;
- £1,545,213 in 2007;
- £1,701,908 in 2008.

6.11 Consultants commissioned to undertake work on leased packaging were unable to identify the number of lessees in the UK, so it is not possible to calculate the cost to individual lessees.

Option 3

6.12 This option is being taken forward following consultation and proposed placing both the service provision activity and the pack/filling activity on the lessor. The total annual costs to lessors under this proposal will be -

- £2,869,495 in 2006;
- £3,516,676 in 2007;
- £3,867,964 in 2008.

6.13 There are approximately 21 main players in the leasing market, plus a number of smaller ones. If the larger ones were the only newly obligated parties, this would mean that on average, they will pick up the following costs -

- £136,643 in 2006;
- £167,460 in 2007;
- £184,189 in 2008.

6.14 However, they are unlikely to be the only newly obligated businesses and the costs are likely to be shared with other smaller players.

Franchise Packaging

Option 2

6.15 This option is being taken forward following consultation and proposed placing packaging recovery and recycling obligations on licensors and pub-operating companies (and others operating similar business models) in respect of the packaging handled by all their licensees, tenanted pubs and similar businesses, in order to ensure that the packaging currently avoiding obligation is brought within the scope of the Regulations.

6.16 WRAP were commissioned to investigate how much packaging currently escapes obligation and focussed on two main types of franchised arrangements namely the fast food sector and the tenanted pub sector. There are however, many other companies using franchise arrangements, but obtaining reliable data on all of these businesses has not been possible.

A. Fast Food Restaurants

6.17 The Government has estimated that obligating the six fast food restaurants detailed in the WRAP report could place the following costs on these businesses -

- £301,508 in 2006;
- £364,099 in 2007;
- £464,521 in 2008.

6.18 Distributing the cost equally between the six fast food chains would place the following costs on each -

- £50,251 in 2006;
- £60,683 in 2007;
- £77,420 in 2008.

B. Tenanted Pubs

6.19 Likewise the Government has estimated that obligating the 8 tenanted pub chains in the WRAP report could place the following costs on these businesses –

- £1,555,653 in 2006;
- £1,719,917 in 2007;
- £2,255,870 in 2008.

6.20 Again, if the costs were to distributed equally amongst the 8 pub chains the costs on each chain would be as follows –

- £194,247 in 2006;
- £214,990 in 2007;
- £281,983 in 2008.

Example of an existing business

6.21 As mentioned above, whilst there will be additional costs for lessors and franchisors there should also be cost savings for existing businesses. To illustrate this we will look at a hypothetical large UK obligated business (company A). Table 13 below shows company A's material specific obligations in 2004 and what they could potentially be in 2008. This is shown both by extrapolating forward the obligations based on current 2008 targets (published in November 2003) and by looking at possible targets scenarios. The Government has exemplified possible targets for 2008 based on three scenarios, included in the "Consultation Paper on Measures to Increase Obligated Tonnage" (see **Annex B** of this RIA, for further information). It should be noted that the target scenarios (and this example) are for the purposes of illustration only. The three scenarios are -

- i. targets based on current tonnages in the waste stream (as published in November 2003), although the scenarios include new glass figures and additional obligated tonnage from franchisors and lessors;
- ii. targets based on new tonnages of packaging entering the UK waste stream (see table 2), but with no additional obligated tonnage from lessors and franchisors; and
- iii. targets based on new tonnages of packaging entering the UK waste stream and including the additional obligated tonnage from franchisors and lessors (using the tonnages published in the consultation paper on measures to increase obligated tonnage).

6.22 Annex B shows the sort of impact that the higher obligated tonnages from leased and franchise packaging and the new figures for packaging entering the UK waste stream *might* make to the targets. **As noted above this example is for illustration only.**

Table 15: company A's obligation (tonnes) in 2004, extrapolated forward to 2008 using current targets in the packaging Regulations and possible new targets (detailed in the consultation paper on measures to increase obligated tonnage and Annex B to this RIA)

	2004	2008 Company A's 2004 obligations (tonnes) based on -			
	Obligation in 2004 (tonnes)	Current targets in the packaging Regulations	Possible targets based on tonnages in the waste stream, published in 2003 (including new glass figures) and <u>additional obligated tonnage from franchisors and lessors</u>	Possible targets based on new tonnages of packaging entering the UK waste stream, but with <u>no additional obligated tonnage</u>	Possible targets based on new tonnages of packaging entering the UK waste stream, and <u>additional obligated tonnage from franchisors and lessors</u>
Paper	46,700	50,615	48,808	55,677	48,808
Glass	83,700	121,714	123,429	137,143	122,571
Plastic	21,900	24,047	23,535	27,628	25,581
Steel	23,100	26,943	26,286	27,600	26,286
Aluminium	2,000	2,731	2,692	2,962	2,654

6.23 Using predicted future PRN prices as shown in table A4, Annex A, it is possible to estimate how much it might cost company A to comply in 2008 using the tonnages illustrated in table 15 above.

Table 16: company A's cost of compliance (£), 2008

Materials	Company A's predicted costs (£) of compliance in 2008 based on -			
	Current targets in the packaging Regulations	Possible targets based on tonnages in the waste stream, published November 2003 (including new glass figures) and <u>additional obligated tonnage from franchisors and lessors</u>	Possible targets based on new tonnages of packaging entering the UK waste stream, but with <u>no additional obligated tonnage</u>	Possible targets based on new tonnages of packaging entering the UK waste stream, and <u>additional obligated tonnage from franchisors and lessors</u>
Paper	1,138,846	1,098,173	1,252,730	1,098,173
Glass	6,085,714	6,171,428	6,857,142	6,128,571
Plastic	901,744	882,558	1,036,047	959,302
Steel	1,010,357	985,714	1,035,000	985,714
Aluminium	143,365	141,346	155,481	139,327
Total	£9,280,027	£9,279,220	£10,336,401	£9,311,088

6.24 Comparing the columns in table 16, it is possible to see from this hypothetical example that the additional obligated tonnages from leased and franchise packaging could make a difference to company A's costs of compliance. It is also clear from the final two columns in table 16 that, with the new revised estimates for the tonnage of packaging entering the UK waste stream in 2008, that if leased and franchise packaging were not obligated, the costs of compliance could be significantly higher for company A.

7. Consultation with small businesses: the Small firms Impact Test

7.1 Businesses that do not simultaneously satisfy the two threshold tests in the Regulations (i.e. businesses must have financial turnover of more than £2m and handle more than 50t of packaging if they are to be obligated) are excluded from the producer responsibility obligations in the Regulations. The changes being made are not designed to have a direct impact on small businesses, but lessors and licensors may pass on some of their costs to their lessees and franchisees respectively, some of which may be small businesses. The Government does not expect these costs to be significant (see Annex A for further information).

7.2 In relation to the changes being made to obligate licensors and pub operating companies, some of the businesses operating under a license or pub agreement could be small businesses i.e. they fall below the thresholds in the Regulations. If these were independent, free-standing companies unconnected, for example, to a pub or restaurant chain, then there could be an argument against obligating them. However, in the operation of the companies concerned, the Government is placing the total packaging obligation on the licensor or the pub operating company rather than the individual outlets.

7.3 The Government has kept in regular contact with the Small Business Service (SBS) throughout the whole consultation process.

8. Competition assessment

Leased, Franchise and Imported Transit Packaging

8.1 The consultants commissioned to undertake the leased packaging work identified 21 main players in the leasing market, although some businesses are significantly larger than others, and there are a number of smaller players. There are a variety of companies involved in the franchise market including fast food restaurants and tenanted pub chains. In each of these sectors there tends to be a relatively small number of large companies: for example, the consultants identified five large fast food companies and eight large tenanted pub chains (however, consultation responses have suggested that 27 tenanted pub chains could become obligated). The Government has not been able to identify the number of importers that could be affected by amending the Regulations in relation to imported transit packaging.

8.2 The costs incurred by obligating leased, franchise and imported transit packaging will be greater for some businesses than others, but the costs are directly related to the amount of packaging the business handles. Therefore the more packaging a business handles the higher the costs incurred. The Government does not expect the proposals to affect the current market structure or change the number or size of firms. New businesses will not face higher charges than existing companies and the proposals should not restrict businesses choice of products. The Government is not aware of the sector being characterised by rapid technological change.

9. Enforcement and Sanctions

9.1 The packaging Regulations are enforced by the Environment Agency in England and Wales, by the Scottish Environmental Protection Agency in Scotland and by the Environment and Heritage Service in Northern Ireland.

9.2 The consultation document did not include proposals for additional sanctions.

10. Monitoring and Review

10.1 The UK packaging system is monitored continually by Government, the Advisory Committee on Packaging and industry generally and the Agencies.

10.2 Accredited reprocessors and exporters are required to provide quarterly returns to the Agencies, which include data on the amount of reprocessing that has taken place that quarter. This enables the Government to track progress throughout the year against packaging targets. This data is also published on the Defra website so that industry too can monitor the UK's performance.

10.3 Each year, the Department produces a Data Note which shows current and historical packaging data including for instance the amount of reprocessing that has taken place each year and the corresponding information on PRN and PERN revenue.

10.4 Furthermore, the UK is required to provide the European Commission with data, 18 months after the end of each year.

10.5 The Advisory Committee on Packaging, which represents the packaging industry also monitors the effectiveness of the packaging Regulations and advises Government as and when changes are needed. The ACP was responsible for the majority of changes made to the Regulations in 2003 and also many of the proposals that the Government consulted on this year. The Government expects the Committee to continue to provide input in the future.

11. Consultation

11.1 Within Government

DTI, Treasury, Cabinet Office, Scottish Executive, Welsh Assembly Government, Northern Ireland Administration, Environment Agency, EHS NI, SEPA, Small Business Service.

11.2 Public Consultation

This RIA accompanied a Government consultation document and presented overall costs and benefits of the proposed changes. The Government consulted for a period of twelve weeks and this RIA has been finalised in light of the comments received from stakeholders.

12. Summary and Recommendation

12.1 This RIA considers a number of changes which will be made to the packaging Regulations and were designed to improve the working of the system by increasing the amount of packaging obligated by the Regulations, therefore sharing the burden more widely and fairly. Below is a summary table of the options put forward to industry for consideration and the changes being made following consultation.

Summary table

Option	Total cost per annum Economic, environmental, social	Total Benefit per annum Economic, environmental, social
<p>“Business as usual”</p> <p>Option 1 - for leased, franchise and imported transit packaging proposals</p>	<p>Would leave the current Regulations as they are now so the overall obligation to meet Directive targets in 2008 would continue to be discharged by currently obligated producers and targets would be set on the basis of currently obligated tonnages.</p>	<p>Would leave the current Regulations as they are now. The obligation which could have been picked up by lessors and possibly lessees, importers and franchisors would continue to be avoided leaving a considerable tonnage outside the Regulations.</p>
<p><u>Leased packaging</u></p> <p>Option 2</p>	<p>Overall: minimal affect on costs</p> <p>The total additional costs to lessors in 2006-2008 would have a PV range of between £298,553 – £311,341.</p> <p>The Government has not been able to identify the number of lessees that could be obligated under this proposal but estimates that the costs per lessee would be in the range of £1,558 - £1,768 in 2006 and £1,308 – £1,518 in 2007 and 2008.</p>	<p>Economic – would increase the amount of packaging which is obligated under the packaging Regulations decreasing the gap between obligated and non-obligated packaging, <u>thus arguably sharing the burden more equitably between producers.</u></p> <p>Business targets could be lower reducing the costs of compliance for existing businesses.</p> <p>May also create a more level playing field for firms to compete in UK.</p> <p>Environmental – could potentially encourage businesses to focus more on their packaging and their own packaging waste. Obligating this packaging could encourage producers to minimise their packaging.</p>
<p><u>Leased Packaging</u></p> <p>Option 3</p> <p>(option being taken forward post consultation)</p>	<p>Overall: minimal affect on costs</p> <p>The total additional costs to lessors in 2006-2008 will have a PV range of between £237,660 - £280,894</p>	<p>This option will deliver the same benefits as option 2 above.</p>

<p><u>Imported Transit Packaging</u></p> <p>Option 2</p> <p>(option being taken forward post consultation)</p>	<p>Overall: minimal affect on costs</p> <p>The Government has not been able to identify the number of businesses that this proposal could affect, but expect the cost per producer to be no more than £1,000 in 2006 and £750 in 2007 and 2008.</p>	<p>This option will deliver the same benefits as leased packaging - option 2, above.</p>
<p><u>Franchise Packaging</u></p> <p>Option 2 –</p> <p>(option being taken forward post consultation)</p>	<p>Overall: minimal affect on costs</p> <p>Obligating packaging used in franchises and similar arrangements will attract the following additional PV costs over 2006-2008.</p> <p>The total cost to the 6 fast food chains identified in the WRAP report in 2006-2008 will have a PV range of between £24,866-£77,820.</p> <p>Likewise the total cost to the 8 tenanted pub chains listed in the WRAP report in 2006-2008 will have a PV range of between £55,249 - £107,471.</p>	<p>This option will deliver the same benefits as leased packaging - option 2, above.</p>

Declaration

I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.

Signed: ***Ben Bradshaw***

Date: ***22nd November 2005***

Ben Bradshaw

Minister for Local Environment, Marine and Animal Welfare

Department for Environment, Food and Rural Affairs

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Annex A

Distributional Costs of Obligating Leased and Franchise Packaging

1. The changes being made to the Regulations to obligate leased and franchise packaging will increase the amount of packaging obligated by the Regulations. Obligating additional packaging will enable the UK business targets to be lower than they would otherwise have been, lowering costs for existing business. Costs for a typical business will depend on the tonnage and type of packaging which becomes newly obligated, the activity which is performed on this packaging, the UK business targets and the costs of recovery and recycling. However, there will clearly, be increases in costs for those business which will have a higher obligation as a result of the proposed changes.

2. The Government included estimates in the consultation document for the amount of packaging that would become obligated as a result of the proposed changes. However, consultation responses have suggested that the estimates used by the Government may be too high. The Government has therefore met with businesses that are likely to be affected by the changes and has reviewed the original estimates. The distributional costs detailed below are calculated using the revised tonnages.

Leased Packaging

3. It is estimated that obligating leased packaging would bring in an additional tonnage of -

Table A1: estimated tonnages of leased packaging 2006-2008

	2006	2007	2008
Wood	73,675	83,713	93,480
Plastic	68,681	78,812	89,320
Steel	1,570	1,757	1,943
Total	143,926	164,282	184,903

4. These figures reflect the 'missing' 85% (pack/filling and selling) obligations that the changes are intended to bring in. The figures have also been reduced by 20% and 10% in 2006 and 2007, respectively, to take account of the fact that it is unlikely that all of the packaging will be obligated straight away following the introduction of the new proposals.

Option 2 – obligations picked up by lessors and lessees

5. In order to identify the costs for lessees, if they had the pack/filling obligation only, and for lessors, if they had the service provision obligation only, the above tonnage has been broken down accordingly. Table A2 shows the amount attributable

to the service provision activity and Table A3 shows the amount attributable to the pack/filling activity.

Table A2: obligated tonnage attributed to lessors based on 48% service provision activity

	2006	2007	2008
Wood	41,258	46,879	52,349
Plastic	38,461	44,135	50,019
Steel	879	984	1,088
Total	80,599	91,998	103,456

Table A3: obligated tonnage attributed to lessees based on 37% pack/filling activity

	2006	2007	2008
Wood	32,417	36,834	41,131
Plastic	30,220	34,677	39,301
Steel	691	773	855
Total	63,327	72,284	81,287

6. If we assume all of the estimated tonnages above were captured in each year and PRN price as shown in table A4 below

Table A4: predicted PRN prices, 2006-2008⁷

	2006	2007	2008
Paper	17.50	20.00	22.50
Glass	35.00	37.50	50.00
Aluminium	50.00	50.00	52.50
Steel	47.50	37.50	37.50
Plastic	42.50	42.50	37.50
Wood	17.50	20.00	22.50
Recovery	3.00	3.00	3.00

7. The total additional annual cost to **lessors** (owners of leased packaging) would be

- £1,606,901 in 2006 (assuming a 67% business recovery target).
- £1,966,641 in 2007 (assuming a 69% business recovery target).
- £2,341,122 in 2008 (assuming a 70% business recovery target).

8. 21 main players have been identified in the leasing market although there are likely to be other smaller businesses which may be obligated by the proposals. The average cost to the 21 lessors would be

- £76,519 in 2006;
- £93,650 in 2007;
- £111,482 in 2008.

⁷ PRN prices shown in the table are averages of estimated forward prices obtained from industry.

9. In addition, there would also be a cost in relation to the requirement to provide data to their lessees; this information should be readily available. The Government estimates that it could take lessors 1 to 2 man days to collect this data and provide it to the lessees at a cost of £500 – 1,000 per lessor.

10. The total additional annual cost to **lessees** (users of leased packaging) would be

- £1,262,595 in 2006 (assuming a 67% business recovery target).

- £1,545,213 in 2007 (assuming a 69% business recovery target).

- £1,701,908 in 2008 (assuming a 70% business recovery target).

11. Consultants commissioned to undertake work on leased packaging were unable to identify the number of lessees in the UK, so a cost per lessee is not possible.

Option 3 – obligations picked up by lessors

12. Under this option (which is being taken forward following the consultation) lessors of leased packaging will pick up a new “service provision” activity of 48% and the existing pack/filling obligation of 37%. It is estimated that obligating leased packaging would bring in an additional tonnage as shown in table A1 above. Therefore using the PRN price in table A4 above, the total annual costs to lessors would be –

- £2,869,495 in 2006 (assuming a 67% business recovery target).

- £3,516,676 in 2007 (assuming a 69% business recovery target).

- £3,867,964 in 2008 (assuming a 70% business recovery target).

13. There are approximately 21 main players in the leasing market, plus a number of smaller ones. If the larger ones were the only newly obligated parties, this would mean that on average, they will pick up the following costs -

- £136,643 in 2006;

- £167,460 in 2007;

- £184,189 in 2008.

14. However, the 21 lessors which were identified by the consultants are unlikely to be the only newly obligated businesses, therefore the costs are likely to be shared among a larger number of players. Until now the costs of discharging the packaging obligations have been distributed amongst all producers excluding these businesses, and it could be argued that lessors have to date been subsidised by other producers therefore saving considerable costs. Placing both obligations on the lessor will avoid some of the burdens associated with option 2 i.e. the requirement for lessors to provide data to lessees; and the Agencies will only need to monitor lessors. 86% of

consultation responses favoured this option, therefore the Regulations will be amended so that the lessor picks up both activities.

Franchises

Option 2 - place packaging recovery and recycling obligations on the licensor and the pub-operating company (and others operating similar business models)

15. Under this option (which is now being taken forward following consultation) the holding company will be responsible for the total recovery obligation of all of its outlets owned or franchised.

A. Fast Food Restaurants

16. It is estimated that obligating the six fast food companies listed in the WRAP franchise report⁸ could bring in the following additional obligated tonnages in 2006-2008.

Table A5: estimated tonnages of franchise packaging, 2006 - 2008

	2006	2007	2008
Paper	25,715	26,384	27,070
Plastic	1,368	1,410	1,454
Total tonnage	27,082	27,793	28,524

17. There may be other restaurants operating franchise or similar arrangements and the intention is to capture these as well bringing in further obligated tonnage.

18. Based on the tonnages in table A5 above and the future PRN prices in table A4, the anticipated cost placed on these restaurants chains will be –

- £301,508 in 2006 (assuming a 67% business recovery target).
- £364,099 in 2007 (assuming a 69% business recovery target).
- £464,521 in 2008 (assuming a 70% business recovery target).

19. Whilst the intention is to obligate the franchisor, some of these costs may be passed on to franchisees. The six fast food chains between them have 3,118 outlets, so the costs per outlet could be -

- £97 in 2006.
- £117 in 2007.
- £149 in 2008.

20. However, we would expect any costs that are passed on to a franchisee by the franchisor to be in proportion to the amount of packaging handled. Therefore, a

⁸ <http://defraweb/environment/waste/topics/packaging/index.htm>

restaurant which handles a lot of packaging would probably incur higher costs than a restaurant which handles little packaging.

B. Tenanted Pub Chains

21. Likewise, it is estimated that by obligating the eight tenanted pub chains identified in the WRAP report the following additional tonnages could be obligated.

Table A6: estimated tonnages of tenanted pub packaging, 2006 - 2008

	2006	2007	2008
Glass	50,000	50,950	51,918
Paper	12,438	12,762	13,094
Steel	3,147	3,129	3,113
Aluminium	3,026	3,087	3,149
Plastic	1,257	1,296	1,336
Total tonnage	95,456	95,828	100,261

22. Using our predicted future PRN prices and the potential tonnages above, the costs to the tenanted pubs could be as follows –

- £1,555,653 in 2006 (assuming a 67% business recovery target).
- £1,719,917 in 2007 (assuming a 69% business recovery target).
- £2,255,870 in 2008 (assuming a 70% business recovery target).

23. Whilst the intention is to obligate the pub operating company, some of these costs may be passed on to the pubs themselves. The eight tenanted pubs have between them 26,300 pubs, so the costs per pub could be -

- £59 in 2006.
- £65 in 2007.
- £86 in 2008.

24. However, as we would expect for franchised outlets any costs that are passed on to a pub by the pub operating company would probably be in proportion to the amount of packaging handled. Therefore, a pub which handles a lot of packaging would be likely to incur higher costs than a pub which handles little packaging.

Summary

25. It should be noted that, even if the Government had decided not to amend the Regulations to obligate leased and franchise packaging, the costs above will be borne by industry since the targets must be reached, whether by the same or a greater number of businesses. Obligating leased and franchise packaging simply re-distributes the costs from currently obligated producers to lessors, franchisors and pub operating companies.

Annex B

Overall effects of obligating leased and franchise packaging

1. Table B1 below shows the sort of impact that the higher obligated tonnages from leased and franchise packaging *might* make to the targets. The first column for each year (e.g. 2006 (possible)) shows the possible targets. These are for the purposes of illustration only. The second column for each year (e.g. 2006 (as published)) shows the targets as they currently stand for 2006 to 2008 (as published in 2003).

Table B1: possible business targets with higher obligated tonnages from leased and franchise packaging

	2006 (possible)	2006 (as published)	2007 (possible)	2007 (as published)	2008 (possible)	2008 (as published)
Paper	66.5	68	67	69	67.5	70
Glass	61	61	67	66	72	71
Aluminium	31	30.5	33	33	35	35.5
Steel	57	58	59	60	60	61.5
Plastic	22.2	22.5	22.5	23	23	23.5
Wood	20	20	21	20.5	22	21
Overall recovery	67	67	68	69	69	70

2. However, as discussed in the introduction of this RIA the amount of packaging waste entering the UK waste stream has recently increased. In this document it is assumed that by obligating additional tonnes of packaging, the business targets would be lower than they would have otherwise been. However, because the tonnages in the waste stream have increased, the effect of the higher obligated tonnage would be to keep targets from rising significantly, rather than necessarily lowering them. Table B2 below shows the sort of targets that might be possible combining both the higher amounts of packaging entering the waste stream and the higher obligated tonnages. **It should be noted that these targets are for indicative purposes only.**

Table B2: possible business targets with higher total in waste stream and higher obligated tonnages from leased and franchise packaging

	2006 (possible)	2006 (as published)	2007 (possible)	2007 (as published)	2008 (possible)	2008 (as published)
Paper	66.5	68	67	69	67.5	70
Glass	62	61	67	66	71.5	71
Aluminium	30	30.5	32	33	34.5	35.5
Steel	57.5	58	59	60	60	61.5
Plastic	23	22.5	24	23	25	23.5
Wood	20	20	21	20.5	22	21
Overall recovery	67	67	69	69	70	70

3. For comparison table B3 below shows what the targets might be with the higher totals in the waste stream, but the potential additional tonnages from leased and franchise packaging were not obligated; that is, if the levels of obligated tonnage

remained, for each material, at the level shown in the tables published by Defra in November 2003.

Table B3: possible business targets with higher waste stream total but no increase to obligated tonnages

	2006 (possible)	2006 (as published)	2007 (possible)	2007 (as published)	2008 (possible)	2008 (as published)
Paper	70	68	74	69	77	70
Glass	63	61	71	66	80	71
Aluminium	31	30.5	36	33	38.5	35.5
Steel	58	58	61	60	63	61.5
Plastic	24	22.5	26	23	27	23.5
Wood	21	20	23	20.5	24	21
Overall recovery	69	67	74	69	78	70

4. The Government has concluded that it would be in the interests of all producers to amend the Regulations to obligate the additional tonnages of franchise and leased packaging identified above. This is because the effect of obligating leased and franchise packaging is to spread the obligation to meet the 2008 targets more equitably amongst a wider population of businesses, and to reduce the burden of each producer to some extent. The reduction of burden is possible because, with the additional tonnages of packaging being obligated, targets can be kept lower than they might have otherwise been (compare Tables B2 and B3). In respect of leased, franchise and imported transit packaging, although there will be costs for the businesses using this packaging, it could be said that this packaging has escaped obligation for the last seven years, and so the producers concerned have avoided the costs of compliance for these seven years.

Regulatory Impact Assessment of Changes to the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended)

**Options for reducing the data collection
and reporting burden on smaller obligated
businesses, the turnover threshold and
technical changes**

Part 2

Department for Environment, Food and Rural Affairs
Scottish Executive
Welsh Assembly Government

November 2005

Contents

Chapter	Page
Contents	64
List of tables and figures	65
Executive summary	67
1. Introduction	68
2. Proposals	70
<ul style="list-style-type: none">• Title of proposal• Purpose and intended effect of measures• Risk assessment	
3. Options	73
4. Benefits	77
<ul style="list-style-type: none">• Economic• Environmental• Social	
5. Costs	87
<ul style="list-style-type: none">• Economic• Environmental• Social	
6. Equity and fairness	91
7. Consultation with small business: the Small Firms Impact Test	94
8. Competition assessment	95
9. Enforcement and sanctions	96
10. Monitoring and review	97
11. Consultation	98
12. Summary and recommendations	99
13. Proposals for technical changes	102
14. Annex A	107

List of figures and tables

- Table 1: Number of companies and additional tonnages of packaging that would be obligated if the turnover thresholds were lowered (2004 data).
- Table 2: Tonnage allocations 2006-2010.
- Table 3: Current costs incurred by small businesses.
- Table 4: Current costs incurred by all SMEs excluding PRN costs.
- Table 5: Comparison of costs of current and “locking” methods.
- Table 6: Total costs to all smaller obligated businesses, excluding PRN costs 2006-2008, of the ‘locking’ option.
- Table 7: Tonnage allocations 2006-2010.
- Table 8: Company A turnover in years 2006 – 2008.
- Table 9: Company A obligations in years 2006 – 2008.
- Table 10: Obligations 2006 – 2008 for company A under option 1 (BAU).
- Table 11: Comparison of data and registration costs including PRN costs associated with current and “allocation” methods in 2006.
- Table 12: Total costs to all small businesses under “allocation method” excluding PRN costs 2006 – 2008.
- Table 13: Comparison of costs and avoided costs of the three options (excluding PRN costs), 2006 – 2008.
- Table 14: Average cost and man days saved for the 3 options, 2006 – 2008.
- Table 15: Costs incurred by all SMEs under option 1 (excludes PRN costs).
- Table 16: Revised costs incurred by all SMEs under option 3 (excludes PRN costs).
- Table 17: Costs associated with different levels of take-up of the “allocation method”.
- Table 18: Total savings associated with the implementation of the “allocation method” in both financial terms and man-days.
- Table 19: Estimated total obligations for 2006 to 2008 for companies in the £1-2m turnover band.

- Table 20: Estimation of the total and per company costs of lowering the turnover threshold.
- Table 21: Summary table of costs and benefits of all the options outlined within the RIA.
- Figure 1: Normal distribution portraying potential distributions of applying a fixed 25 tonnage allocation to SMEs.

Executive summary

- i. This Regulatory Impact Assessment (RIA) is the second part of a two part RIA which accompanied a Government consultation document entitled “Consultation Paper on Measures to Increase Obligated Tonnage” published on 30 March 2005. This part considers the changes that will be made to the packaging Regulations to simply the data collection and reporting burden for smaller obligated businesses; i.e. those handling more than 50 tonnes of packaging and in the £2-5m turnover band (henceforth “SMEs”) and it also discusses the possibility of reducing the turnover threshold in the packaging Regulations from £2m to £1m (although no proposals for change were put forward in the consultation document).
- ii. SMEs have told the Government that they face disproportionate burdens in terms of the requirement to collect and provide data on the packaging that their business handles and to calculate their annual recovery and recycling obligations. The Government has indicated its intention, as far as possible, to reduce the data provision burden for these businesses, provided this can be done without creating additional burdens for those that will continue to have the data provision requirement.
- iii. The Government proposed three options in the consultation paper for reducing the data reporting burden placed on smaller businesses: business as usual, locking data and the allocation method. The Government’s preferred option in the consultation document was the fixed tonnage “allocation method” for SMEs, as it is the only option which reduces their resource use, the time invested in data collection, calculation and administration and particularly their costs of dealing with this requirement. This approach may lose several hundred tonnes from the national obligation, but this is unlikely to affect targets and would be the simplest, least-cost approach to data simplification.
- iv. There are a number of benefits associated with the allocation method. The only cost is that it does not incentivise packaging waste reduction. The main benefits are, first, that it is estimated such a system could save industry up to £3,748,863 between 2006 and 2008 compared with the current method, if all SMEs adopted the “allocation method”. Second, it is less burdensome in terms of data gathering and reporting, which reduces costs. Third, it would save approximately 27,468 employee days for the obligated 1090 SMEs between 2006 and 2008.
- v. The Government is not going to lower the turnover threshold in the Regulations as it could obligate an additional 2000 small businesses and the costs of monitoring this group of businesses would be disproportionately resource intensive and costly; and any change would be unlikely to achieve the estimated 78,000 tonnes of obligated packaging.
- vi. The Government has consulted extensively with the Small Business Service and the Federation of Small Businesses during the policy making process. These proposals are not expected to affect the current market structure or change the number or size of firms.
- vii. A number of technical changes are being made to the Regulations and these are discussed in chapter 13.

Regulatory Impact Assessment

1. Introduction

1.1 This Regulatory Impact Assessment (RIA) is the second part of a two part RIA, which accompanied a consultation entitled “Consultation Paper on Measures to Increase Obligated Tonnage” published on 30 March 2005. The paper proposed changes to the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended). The consultation paper discussed a range of options to increase the amount of packaging that is obligated by the Regulations with a view to spreading the obligation to recover and recycle packaging waste more widely in the most cost-effective, equitable and practical way possible and in a way that does not create additional complexity for businesses already obligated. The consultation paper discussed various options for simplifying the data reporting burden for smaller businesses and the rationale under-pinning the changes.

1.2 Part one of the RIA considers the proposals for obligating leased and franchise packaging and part 2 considers the proposals for simplifying the data collection and reporting burden for smaller obligated businesses, handling more than 50t of packaging and within the £2-5m turnover band (henceforth “SMEs”) and also discusses the possibility of reducing the turnover threshold in the packaging Regulations from £2 million to £1 million, although no proposals for change were put forward in the consultation paper.

1.3 The packaging Regulations obligate businesses which handle more than 50 tonnes of packaging and have an annual turnover in excess of £2 million to carry out recovery and recycling of packaging waste to target levels, in order to enable the UK to meet its legally binding targets under the EC Directives on Packaging and Packaging Waste 94/62/EC and 2004/12/EC.

1.4 The Government is aware that some SMEs, may face disproportionate burdens, in particular, in relation to the requirement to collect and provide data to the Agencies on the packaging that their business handles, and to calculate their annual recovery and recycling obligations. The Government indicated its intention to reduce the data provision burden for these businesses where feasible, provided this could be done without creating additional burdens for those that will continue to have the data provision requirement; and provided that the UK can meet its Directive targets in 2008. Both the Advisory Committee’s Data Task Force, and consultants⁹ commissioned by the Government have put forward proposals for addressing the issue, which have helped the Government to consider how to progress. The costs and benefits associated with each option and the change which will be made following consultation are discussed below.

1.5 It is intended that a ‘simplified system’ for SMEs would run alongside, and be compatible with, the existing data provision system, which would remain in force for the remainder of obligated businesses. The intention in simplifying the data provision

⁹ AEA Technology

requirements for smaller businesses is to reduce their resource use, the time invested in data collection, calculation and administration and, in particular, their costs of dealing with this requirement in the Regulations.

1.6 The Government is also aware that some obligated businesses consider that the turnover threshold in the Regulations (i.e. “more than £2m turnover”) should be lowered to bring in businesses with “more than £1m turnover” and whilst this is discussed in this document, no proposals for change were put forward in the consultation paper, as the costs would outweigh the benefits.

2. PROPOSALS

2.1 This chapter of the RIA considers the purpose and intended effect of each measure. This includes sections on: the objective of the change; the background; and the risk associated with each. The costs and benefits of each option and, in particular, the changes that will be made following consultation are discussed in chapters 4 and 5.

DATA SIMPLIFICATION

PURPOSE AND INTENDED EFFECT OF MEASURE

Objective

2.2 To reduce as far as possible the costs for SMEs¹⁰ by reducing the data collection and reporting burden placed on smaller businesses obligated by the packaging Regulations, while maintaining the fairness and wider benefits of the packaging Regulations.

Background

2.3 The Government is aware that the data provision requirement, as it currently stands, is considered to be particularly onerous by SMEs obligated under the Regulations and the Government has indicated that it would like to simplify this requirement for these businesses.

2.4 Under the Regulations, data are to be “as accurate as reasonably possible” and are to be provided annually by a fixed deadline. According to reports received from some smaller companies, the effort required to firstly establish whether they are obligated and secondly, to provide accurate and timely data, can sometimes be a costly exercise. This is because the business must collect data on the amount of packaging handled by the business throughout the year, fill in a data form provided by the Agency and calculate its recovery and recycling obligations.

2.5 A ‘simplified system’ would need to run alongside and be compatible with the current system (i.e. for businesses that have a turnover in excess of £5m and handle more than 50 tonnes of packaging). The differences would be; first, the way in which a company’s obligation is calculated; and second, the way in which data is gathered and provided to the Agencies. The Government, Agencies and the Advisory Committee on Packaging will monitor the effectiveness of any simplification system taken forward for SMEs. Should the system which is adopted prove successful, a similar system could be extended to larger businesses, but further work would be needed and industry would need to be consulted prior to any changes to the Regulations.

Risk Assessment

2.6 The Government is aware that SMEs consider the packaging Regulations data provision requirements quite burdensome, and could possibly encourage some

¹⁰ “SME” here means the businesses handling more than 50 tonnes and in the £2-5m turnover band.

businesses to consider “free-riding”. Consequently, the Government developed 2 options (see chapter 3) for reducing the burden placed on smaller obligated businesses.

Simplifying the data provision requirement would however, probably mean less robust data and a potential trade-off between data accuracy and simplification. It would also have to allow the UK to continue to provide accurate data to the European Commission each year.

2.7 For the purposes of costing these proposals it was estimated that an SME will take approximately 8.9 man days a year to collect and calculate its packaging data and this is estimated to cost the business £1,000 per annum¹¹. While there are no comparable figures which exist for larger businesses i.e. above £5m turnover threshold, it is probable that these are proportionally higher. If a “business as usual” approach is taken forward the costs will remain as now. If one of the simplified options is adopted, the costs will be substantially reduced.

LOWERING OF THE TURNOVER THRESHOLD

PURPOSE AND INTENDED EFFECT OF MEASURE

Objective

2.8 To spread the burden of packaging waste recycling more equitably across a larger number of obligated businesses, therefore bringing in additional obligated tonnages and potentially allowing business targets to be lower than they would otherwise have been.

Background

2.9 The consultation document discussed the possibility of lowering the turnover threshold from £2 million to £1 million because the change would have obligated additional businesses and would therefore have:

- made the system fairer by spreading the obligation more equitably;
- possibly facilitated waste minimisation;
- potentially reduced the cost of compliance for currently obligated businesses.

Risk Assessment

2.10 If the turnover threshold was ever lowered, it would have to be with the proviso that a simplified data system had been adopted first for SMEs. If the turnover threshold was lowered to £1 million, it would only increase the obligated tonnage by 78,000 tonnes, (or 0.87% of the total amount of packaging which is expected to be obligated in 2006), however, it would obligate a further 2,000 small businesses (as shown in Table 1 below), which the Agency would be required to monitor.

¹¹ Valpak survey of 240 SMEs and AEA Technology report ‘simplification of the data provision requirement for smaller businesses in the packaging regulations’.

2.11 A change which would obligate a further 2,000 businesses for an additional 78,000 tonnes of obligated packaging may be disproportionate: the present system obligates some 10,200 businesses for around 8,700,000 tonnes, with an average obligation per producer of approximately 852 tonnes, compared with a projected 39 tonnes (per small business) if this group of companies were to become obligated.

Table 1: Number of companies and additional tonnages of packaging that would be obligated if the turnover thresholds were lowered (2004 data)

Turnover (£m)	Tonnage threshold	No. of companies	Obligated tonnage (tonnes)	Resultant average obligation per business (tonnes)	Additional obligated tonnage
>2	>50	10,159	8,653,801	852	-
2-5	>50	1090 (baseline)	-	-	-
1-2	>50	2000	-	39	78,000

2.12 The costs for the Agencies to monitor this group of businesses, providing 2-3% of the obligation, would be disproportionately resource intensive and expensive given the likely need for Agencies to first find these businesses to inform them of their new obligations and then devote time explaining and clarifying what the Regulations require of them. Furthermore, discussions with stakeholders have suggested that it is highly unlikely that the full 78,000 tonnes would actually be captured, if the Regulations were amended. The Government therefore decided not to put forward proposals in the consultation paper to change the turnover threshold in the Regulations, although it welcomed comments from stakeholders on this issue.

3. OPTIONS

DATA SIMPLIFICATION

3.1 The Government put forward 3 possible options for simplifying data for smaller businesses in the consultation paper.

Option 1: “business as usual” i.e. no change to the Regulations.

3.2 This option would leave the Regulations as they are now. Therefore, all of the currently registered smaller obligated businesses (approximately 1,090 businesses) handling about 2% of the total national tonnage obligation, (i.e. 173,000 tonnes of 8.7 million tonnes) would continue to collect and provide data to the Agencies as now.

Option 2: the “locking option”

3.3 This option would require businesses to calculate their obligation in the first year (base year), and this figure would then be ‘locked’ for the following 2 years (provided there were no major changes to its turnover¹²). The obligation would then be calculated again for year 4 i.e. data would have to be collected throughout the third year, after which the ‘locked’ cycle would then be repeated, e.g.

Calculate data for obligation year	2005
No calculation of data for obligation year	2006
No calculation of data for obligation year	2007
Calculate data for obligation year	2008

3.4 Thus, in this example, a business would have needed to collect data in 2004, which would be provided to an Agency in 2005; and then it would not need to collect data again until 2007, which would then be provided to an Agency in 2008 for that obligation year.

Option 3: the ‘allocation option’

3.5 Any producer within the £2-5m turnover band and handling more than 50 tonnes of packaging would be allocated a fixed tonnage per £1m turnover. A number of other allocation approaches were considered but this option offered the simplest and most reliable way of ensuring data provision was simplified for the maximum number of SMEs while ensuring adequate material was obligated to meet Directive targets.

3.6 The ‘allocation’ option was the simplest method put forward in the consultation paper, since it requires no or very little data collection and compared with both the ‘locked’ and ‘current’ methods. The most feasible ‘fixed tonnage’ is 25 tonnes per £1m turnover in 2006, since this value will not place an undue burden on companies

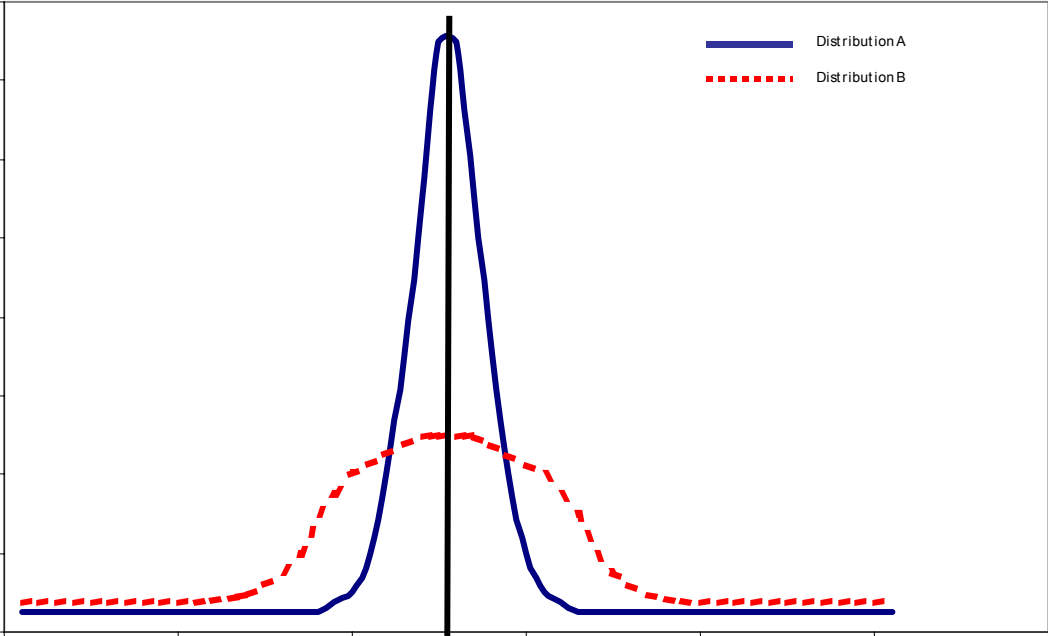
¹² See Annex A for “significant changes”

within the £2-5m turnover range compared with the current system and is the figure which will ensure that the UK loses little obligated packaging.

3.7 Although the allocation system will require all businesses to be allocated a 25 tonne obligation per £1m turnover in 2006 the Government appreciates that some companies may have a higher obligation than they would have under the current method. These businesses may therefore believe that the Government is placing additional burdens upon them. However, the Government believes that any extra compliance costs, in terms of purchasing PRNs, will be more than offset by the reduced costs associated with the removal of the data burden and the need to gather data. Whilst the Government believed that if this option was preferred by stakeholders and was taken forward, it would have to be on the condition that it would be mandatory for **all** smaller obligated businesses. The Government therefore included a question in the consultation paper asking stakeholders to comment on whether a simplified system should be mandatory or voluntary.

3.8 Figure 1 outlines two types of normal distribution: A and B. Since packaging obligations vary hugely within the SME sector it is anticipated that applying the 25 tonne allocation to this group of businesses will have an effect portrayed by either distribution A or B. The Government is mindful that there will be some ‘outliers’ that skew the data, and any company to the left of the central line will be a ‘winner’ and anyone to the right a ‘loser’ in terms of obligations, however, it envisages that the spread within the total population will resemble distribution A i.e. there will not be a significant number of winners or losers.

Figure 1: Normal distribution portraying potential distributions of applying a fixed 25 tonne allocation to SMEs per £1million turnover



3.9 The fixed tonnage allocations for the period 2006 to 2010 are given in Table 2. These tonnages increase to take account of increases in total packaging flowing into the waste stream each year and rising targets for other businesses.

Table 2: Tonnage allocations 2006-2010

Year	2006	2007	2008	2009	2010
Tonnage	25	26	27	28	29

3.10 This option was the Government's preferred option when it consulted in March 2005, since it is the only option which removes the need to:

- collect data on packaging handled each year;
- carry out what can be quite a complex data calculation;
- report data to the Agency.

3.11 Simplification and better regulations are at the very heart of the proposals outlined above. Both simplification options aim to reduce the regulatory and financial burden of the packaging Regulations for smaller obligated businesses while ensuring that the environmental objectives of the Directive are met at the minimum cost to business.

Action based on consultations responses

3.12 The consultation document posed four questions in relation to simplification of data for smaller obligated businesses. The first asked consultees to indicate which approach, if any, the Government should adopt to alleviate the burden placed on SMEs. 83 organisations responded, including reproprocessors, trade associations, compliance schemes, large retailers and packer/fillers. 61% of consultation responses favoured the allocation option including large compliance schemes and trade associations, 17% favoured the locking option and 21% opted for the business as usual option. Those that did not believe that the allocation option was the way to progress included a number of compliance schemes and obligated businesses. The wood sector in particular also raised particular concerns in terms of the volatile relationship between tonnage and turnover in this sector.

3.12 The second question asked consultees to consider whether the allocation option was the simplest and ultimately the best method for reducing the burden placed on SMEs. 67% of responses to this question (representing the majority of obligated parties) agreed that it was the better course of action, 30% did not and 3% suggested an alternative method.

3.12 The third question posed, asked consultees to give their views on how the SME would discharge their obligation if they were simply allocated a tonnage. 53% of respondent organisations agreed with the Government's suggestion that the SME should buy PRNs in relation to the main material that it handled, 47% did not agree.

3.13 The fourth question asked consultees whether, in their view, a simplified system should be mandatory or voluntary. 47% of responses indicated that the simplification system should be voluntary, while 53% of respondents felt that the system should be mandatory. As a result of the consultation process, the Government is proposing that both the allocation approach (where a fixed tonnage per £1 million turnover is applied as per table 2 above) and current data system be available to SMEs in the £2-5 million turnover bracket. In addition those SMEs that opt for the simplified approach must purchase recycling PRNs in the main material

they handle. SMEs must, however, stay with their method of choice, for calculating their obligations, for a period of at least 3 years. This has the advantage of allowing reasonably accurate predictions to be made of how much packaging will be obligated each year, something that would be more difficult to predict if producers were able to change the way they calculate their obligations annually.

LOWERING OF THE TURNOVER THRESHOLD

3.14 Whilst the Government did not include proposals in the consultation paper for lowering the turnover threshold in the Regulations from £2 million to £1 million, the consultation welcomed comments on this point. However, this RIA considers the costs and benefits of the two options available i.e. business as usual or lower the turnover threshold.

Option 1: “business as usual”

3.15 Doing nothing would mean no change to the current Regulations so businesses with a turnover between £1 and £2 million would remain outside the scope of the Regulations.

Option 2: lowering the £2m turnover threshold to £1m

3.16 This option would reduce the turnover threshold in the Regulations which could potentially obligate 2000 additional businesses and approximately 78,000 tonnes of additional obligated packaging. Whilst this would share the obligations amongst a greater number of businesses, potentially allowing targets, and therefore costs, to be lower than they would otherwise have been for existing businesses, the relatively small amount of tonnage associated with obligating a very large number of small businesses is seen as disproportionate.

3.17 As mentioned above the Government did not include a proposal in the consultation paper to lower the turnover threshold as it decided it would be better to ‘do nothing’. It considers that the costs involved in lowering the threshold significantly outweigh the benefits since it is unlikely that the Government would obligate all of the 78,000 tonnes of packaging associated with these businesses, therefore taking steps to obligate a further 2,000 SMEs cannot be justified.

Action based on consultations responses

3.18 The Government did not receive any comments in consultation responses that would suggest that a ‘business as usual’ was not the right approach to take. As a result the Government has concluded that no action is required in relation to this issue and the Regulations will not be amended.

4. BENEFITS

4.1 The following section considers the benefits of the options put forward in the consultation document and, in particular, the changes the Government will be making to the Regulations following consultation.

4.2 The “**benefits**” of each option are considered in terms of the following three criteria and are compared with the ‘business as usual’ option:

- economic;
- environmental; and
- social benefits.

DATA SIMPLIFICATION

Option 1: “business as usual” option

4.3 This option would leave the Regulations as they are now i.e. smaller obligated businesses would continue to collect and provide data to the Agency as now.

Economic

4.4 If the Regulations remain unchanged smaller businesses would continue to provide data as now. Some SMEs have been providing data to the Agencies for several years and some of them have become adept at it. Business as usual could, in this instance, be a viable option since the total recovery obligation of these businesses is only 2% of the total national obligation; and based on compliance scheme and Agency data from last year, approximately 15% of registrants are in the £2-5m turnover bracket.

4.5 Table 3 illustrates the estimated costs each year to smaller businesses. For the purposes of this RIA a business registering with a scheme is estimated to pay on average £1,558 (data collection and registration, excluding PRN costs) and a business registering with the Agency is estimated to pay on average £1,768.

Table 3: Current costs incurred by small businesses

	Current data collection and calculation costs
Company data preparation	£1,000 each
Average number of days invested in calculating obligations	8.9
Agency costs charged to companies – data & registration	£768 for direct registrants and £558 through schemes
Total range of costs	£1,558 – 1,768

4.6 It is estimated that there are currently 1090 small businesses registered in the UK, of which 87 are registered with an Agency (62 with the EA, 8 with SEPA and 17 with EHS).

4.7 Therefore, the costs to UK small businesses under a “business as usual” approach for collecting and calculating packaging data and registering with an Agency or scheme, excluding PRN costs in 2006 is estimated to be £1,716,490 and this is broken down in table 4 below.

Table 4: Current costs incurred by all SMEs excluding PRN costs

	Direct Registrants	Scheme Members
Number of companies	87	1,003
Company data preparation	£1,000	£1,000
Registration Fees	£768	£558
Total	£153,816	£1,562,674

4.8 Assuming Agency fees remain unchanged to 2008 then these costs would apply to 2006, 2007 and 2008 so total cost to the 1090 small businesses would be £5,149,470¹³ excluding PRN costs; the Present Value (PV)¹⁴ of this cost stream is £4,977,296¹⁵.

Environmental

4.9 The environmental benefits centre around the benefits of the existing regulations; primarily increased recovery, recycling and waste minimisation (which will reduce a company’s obligation), which contribute to the UK’s resource use efficiency in relation to sustainable waste management objectives.

Social

4.10 Keeping the existing system, ties the size of a producer’s statutory obligation under the Regulations directly to the amount of packaging they produce, therefore providing an incentive for producers to minimise the packaging they use around their products. This financial incentive to minimise packaging could help to reduce the quantity of waste going to landfill or ending up as litter on our streets.

¹³ 1,716,490 multiplied by 3 for years 2006 – 2008.

¹⁴ The mathematical expression used to calculate discounted present values is given below. Year 0 is the present. Accordingly, the present value, at the middle of year 0, of a payment of £1 made at the middle of year n is given by: $D_n = 1/(1+r)^n$ where r is the discount rate and D_n is the discount factor.

¹⁵ Costs and benefits are discounted at the Treasury Green book recommended rate of 3.5% to ‘present values’, so that they can be compared.

Option 2: the “locking” option

4.11 Under this proposal an SME would collect data and calculate its obligation in the current way in the first year and the obligation would be ‘locked’ for the following 2 years. The obligation would then be calculated again for year 4 after which the ‘locked’ cycle would then be repeated.

Economic

4.12 A business would still be required to collect and calculate data in the same way as now, but there would no longer be a requirement to do so every year. In the example given above in chapter 3, the business would collect data in 2004 in order to calculate its obligation for year 2005. However, the business then need not collect packaging data again until 2007, which it would use to calculate its 2008 obligation. In terms of days saved this would equate to 8.4 days for two of the four years.

4.13 Some producers have been providing packaging data now for several years and have become quite familiar with the process, but others, especially at the pack/filler and retailer stage of the packaging chain, find the data requirement burdensome because they handle numerous lines and materials, requiring a number of data sets. Existing producers may prefer this option because while it is not taking away the requirement to collect data and calculate obligations, it means they would not need to adjust to a new system and would benefit from not having to collect or calculate data in some years.

Table 5: Comparison of costs of current and “locking” methods

	Current data collection + calculation costs	Locking system costs	
		Obligation year	Locked year
Company data preparation	£1,000 each	£1,000 each	£66
Average number of days invested in calculating obligations	8.9	8.9	0.5
Agency costs charged to companies – data & registration	£768 for direct registrants and £558 through schemes	£768 for direct registrants and £558 through schemes	£562 for direct registrants and £444 through schemes
Total range of costs	£1,558 – 1,768	£1,558 – 1,768	£510-628

4.14 The cost benefits of the locking system are outlined in table 5. According to table 6, below, the total costs to all 1090 small businesses for 2006 – 2008 in terms of the locking method would be £2,848,822¹⁶ excluding PRN costs; the PV of this cost stream is £2,715,548.

Table 6: Total costs to all smaller obligated businesses, excluding PRN costs 2006-2008, of the ‘locking’ option

¹⁶ Sum of all totals in table 6

	Direct Registrants			Scheme Members		
	2006	2007	2008	2006	2007	2008
Number of companies	87	87	87	1,003	1,003	1,003
Company data preparation	£66	£66	£1,000	£66	£66	£1,000
Registration Fees	£562	£562	£768	£444	£444	£558
Total	£54,636	£54,636	£153,816	£511,530	£511,530	£1,562,674

Environmental

4.15 Compared with the ‘business as usual’ option which promotes waste minimisation and therefore sustainability; the ‘locking’ approach does not have any additional environmental benefits.

Social

4.16 As with the ‘business as usual’ option, a producer’s obligation is directly related to the waste they produce hence providing an incentive for waste minimisation, which could in turn help to reduce waste pollution to some extent.

Option 3: the ‘allocation option’

4.17 Under this proposal smaller obligated businesses would be “allocated” an obligation based on their turnover.

Economic

4.18 This option completely removes the current system of data collection and calculation for obligated SMEs and also the costs associated with these activities. A business would still be required to know whether or not they meet the threshold levels in the Regulations, but this would apply to any simplified system and as this group of businesses is obligated now, they should already know this. Such businesses will not need to collect data any more under this option because they will “assume” that they continue to meet the threshold tests. The only businesses that may decide to check whether they still exceed the thresholds are a small number of businesses which fluctuate around the 50 tonne threshold test level. Under this option it is considered that it will be less expensive for businesses to be assigned a fixed obligation than to go through the costly exercise of calculating the amount of packaging they handle each year.

4.19 A business would be allocated an obligation based on its turnover, because this will be known to them already. A model prepared by consultants¹⁷, which uses historic and projected packaging data (representing a sample size of 20% of the total population of SMEs) suggests that the most appropriate tonnage allocations per £1 million turnover for 2006 – 2010 are those set out below in Table 7.

Table 7: Tonnage allocations 2006-2010

Year	2006	2007	2008	2009	2010
Tonnage	25	26	27	28	29

4.20 The following example portrays how this proposal could apply to a producer (company A), in practice. Focusing on the period in question i.e. obligation years 2006 – 2008, company A would only need to know its turnover in the previous year in order to ascertain its obligation. In this example it is assumed that the company has the following turnovers, taken from the previous year:

Table 8: Company A turnover in years 2006 – 2008

Year	2006	2007	2008
Turnover (£)	3,000,000	3,200,000	3,500,000

4.21 Company A would then use the tables provided by the Agency to derive its obligations. In this example these would be:

Table 9: Company A obligations in years 2006 – 2008

Year	2006	2007	2008
Obligation (tonnes)	75	83	95

4.22 As with all other producers, company A would have to ensure that its obligation is met by purchasing PRNs or PERNs. The Government proposed that businesses selecting this method should only purchase recycling PRNs or PERNs in relation to the main material handled.

4.23 For example, company A has a turnover of 3,000,000 tonnes and handles plastic and paper in 2006 in the ratio of 40% plastic and 60% paper. From Table 9, it is evident that company A’s total obligation is 75 tonnes in 2006. Company A would have to purchase 75 tonnes of paper PRNs, as this is the main material that it handles.

4.24 To allow a comparison of costs, the Government has set out the costs which company A would have to bear under the “business as usual” option in table 11 below in order to allow a comparison with the “allocation” option. If company A progressed with the current system, the Government would assume it would have the following obligations (which, for comparison, are lower than the obligations that would occur under the ‘allocation’ method):

¹⁷ AEA Technology report ‘simplification of the data provision requirement for smaller businesses in the packaging regulations’

Table 10: Obligations 2006 – 2008 for company A under option 1 (BAU)

Obligation year	2006	2007	2008
Obligation based on current system (tonnes)	60	65	77

Note – in this example the company would have a higher obligation under the allocation method, but there will also be companies that have a lower obligation.

4.25 Table 11 shows that even though company A might be assigned a higher obligation under the allocation method (having PRN costs of £1,692 under the current system (business as usual) and £2,130 under the allocation system), it would still save money because the cost and burden of data collection would be removed.

4.26 Using average PRN prices¹⁸, the Government estimates that the following costs would apply to company A under the existing system and the simplified approach for collecting and calculating the data and registering with either an Agency or scheme.

Table 11: Comparison of data and registration costs including PRN costs associated with current and “allocation” methods in 2006

	Current system	Proposed allocated tonnage system
Company data preparation	£1,000 each	£66
Average number of days invested in calculating obligations	8.9	0.5
Agency costs charged to companies – data & registration	£768 for direct registrants and £558 through schemes	£562 for direct registrants and £444 through schemes
Total costs of registration and data collection	£1,558 – 1,768	£510 – 628
PRN costs (2006)	£1,692	£2,130
Total costs to company A in 2006	£3,250 – 3,460	£2,640 – 2,758

4.27 The Government believes that under the ‘allocation method’ most businesses will save money when all of the relevant costs are considered i.e. data collection and PRN costs.

4.28 Focussing on all obligated businesses as a whole –

¹⁸ See part 1 of the RIA, table A4 in Annex A.

Table 12: Total costs to all small businesses under “allocation method” excluding PRN costs 2006 – 2008

	Direct Registrants			Scheme Members		
	2006	2007	2008	2006	2007	2008
Number of companies	87	87	87	1,003	1,003	1,003
Company data preparation	£66	£66	£66	£66	£66	£66
Registration Fees	£562	£562	£562	£444	£444	£558
Total	£54,636	£54,636	£54,636	£511,530	£511,530	£511,530

4.29 The cost to all 1090 small businesses from 2006 – 2008 would be £1,698,498 excluding PRN costs, and NPV of £1,641,708.

Summary of options

4.30 The following table provides a summary of the costs that businesses would be expected to absorb under each of the options the Government proposed in the consultation document, excluding PRN costs (as these are market driven and will vary depending on supply and demand).

Table 13: Comparison of costs and avoided costs of the three options (excluding PRN costs), 2006 – 2008

		2006	2007	2008	Total	Benefit (Avoided cost, BAU minus option cost)
Option 1 “Business as usual”	Direct registrants	£153,816	£153,816	£153,816	£461,448	
	Scheme members	£1,562,674	£1,562,674	£1,562,674	£4,688,022	
	Total	£1,716,490	£1,716,490	£1,716,490	£5,149,470	
PV 2006-2008					£4,977,296	
Option 2 “locking system”	Direct registrants	£54,636	£54,636	£153,816	£263,088	
	Scheme members	£511,530	£511,530	£1,562,674	£2,585,734	
	Total	£566,166	£566,166	£1,716,490	£2,848,822	
PV 2006-2008					£2,715,548	£2,261,748
Option 3 “Allocation method”	Direct registrants	£54,636	£54,636	£54,636	£163,908	
	Scheme members	£511,530	£511,530	£511,530	£1,534,590	

	Total	£566,166	£566,166	£566,166	£1,698,498	
	PV 2006-2008				£1,641,708	£3,335,588

4.31 Table 14 details the cost benefits of the 3 options.

Table 14: Average cost and man days saved for the 3 options, 2006 – 2008

	Option 1	Option 2	Option 3
Total costs to smaller obligated businesses 2006 –2008	£5,149,470	£2,848,822	£1,698,498
Total cost savings compared with business as usual (i.e. option 1)	£0	£2,300,648	£3,450,972
Average cost saving per small business	£0	£2,111	£3,166
Total man days used to collect/calculate data	29,103	10,791	1,635
Total man days saved compared with business as usual (i.e. option 1)	0	18,312	27,468

Environmental

4.32 A perceived environmental benefit is the fact that companies can invest the time and money that they have saved under the allocation method in exploring other sustainable ways to reduce their environmental footprint.

Social

4.33 The Government was unable to identify any social benefits.

Action based on consultations responses

4.34 The majority of responses (see paragraph 3.12) were in favour of the proposal to allocate small businesses a recovery obligation, which would mean they would no longer need to go through a costly and time consuming data collection exercise.

4.35 Some organisations, however, were not in favour of the allocation option and others felt that it should be voluntary. As a compromise the Government has therefore decided to give SMEs the ability to choose to use either the allocation method or continue with the current system, if they so wish, even though the current system may be more burdensome. However, should a small producer choose to use the allocation method they must do so for a minimum of 3 years.

4.36 The Environment Agency has also re-visited their fees and have decided that it is possible to apply a lower fee to smaller businesses who opt for the allocation method and register through a compliance scheme. The current fee for producers registering through a scheme is £558 and the fee consulted on for SMEs using the allocation method was £444. Following the Environment Agency's review, the fee

has been reduced to **£345** for those using the allocation method via a scheme registration.

4.37 The direct registration fee is currently £768 and the fee when electing to use the allocation method will be £562. The Agency is, however, content that this level of fee will reflect the cost of the work undertaken in respect of a direct registrant who chooses the allocation method.

4.38 Since the allocation option is being taken forward, with the proviso that it is voluntary and the Agency fees have been re-visited, benefits associated with option 3 have been revised below. The costs associated with “business as usual are restated below for ease of reference. (tables 15 and 16). By giving SMEs the choice of either using the current system or the new allocation method for determining their packaging obligations the Government has had to estimate the cost savings which would be associated with differing levels of take up of the new system. Table 17, below, identifies the costs that would be associated with different scenarios e.g. 50% of businesses continue with the current system, 50% choose to use the new allocation system.

Table 15: Costs incurred by all SMEs under option 1 (excludes PRN costs)

	Direct Registrants	Scheme Members
Total	£153,816	£1,562,674

4.39 These costs apply to 2006, 2007 and 2008. The total cost to the 1090 small businesses would be £5,149,470 excluding PRN costs;

Table 16: Revised costs incurred by all SMEs under option 3 (excludes PRN costs)

	Direct Registrants			Scheme Members		
	2006	2007	2008	2006	2007	2008
Number of companies	87	87	87	1,003	1,003	1,003
Company data preparation	£66	£66	£66	£66	£66	£66
Registration Fees	£562	£562	£562	£345	£345	£345
Total	£54,636	£54,636	£54,636	£412,233	£412,233	£412,233

4.40 The cost to all 1090 small businesses from 2006 – 2008 would be £1,400,607 excluding PRN costs, and NPV of £1,353,780.

4.41 In light of the responses to the consultation and the updated Environment Agency fee, the Government has reviewed the potential costs associated with different levels of take up of the “allocation method” under a voluntary regime (Table 17).

Table 17: Costs associated with different levels of take-up of the “allocation method”

	Take-up Ratio				
	Allocation method : Current System				
	100 : 0	75 : 25	50 : 50	25 : 75	0 : 100
Cost incurred by producers using the “allocation method”	£1,400,607	£1,050,455	£700,304	£350,152	0
Cost incurred by producers using the current system	0	£1,287,368	£2,574,735	£3,862,103	£5,149,470
Total Cost	£1,400,607	£2,337,823	£3,275,039	£4,212,255	£5,149,470
NPV of costs	1,353,777	2,259,657	3,165,537	4,071,417	4,977,296

4.42 Table 18 below shows the cost savings to smaller businesses under the different take up scenarios.

Table 18: Total savings associated with the implementation of the “allocation method” in both financial terms and man-days.

	Take-up Ratio				
	Allocation method : Current System				
	100 : 0	75 : 25	50 : 50	25 : 75	0 : 100
Total costs to smaller obligated businesses 2006 – 2008	£1,400,607	£2,337,823	£3,275,039	£4,212,255	£5,149,470
Total cost savings compared with current system	£3,748,863	£2,811,647	£1,874,431	£937,215	£0
Average cost saving per small business	£3,439	£2,579	£1,720	£860	£0
Total man days used to collect/calculate data	1,635	8,502	15,370	22,236	29,103
Total man days saved compared with business as usual	27,468	20,601	13,733	6,867	0

4.43 The benefits associated with the simplified allocation method (i.e. cost savings and man days) can be seen in table 18 above. The majority of responses to the consultation paper were in favour of the allocation method, therefore the Government expects a relatively high take-up rate.

LOWERING OF THE TURNOVER THRESHOLD

Option 1: “business as usual”

4.44 Doing nothing would mean no change to the current Regulations so businesses with a turnover between £1m and £2m would remain outside the scope of the Regulations.

Economic

4.45 The packaging system would remain as now. Smaller businesses would remain non-obligated, so they would not have to bear the costs associated with discharging packaging obligations. The Environment Agency would not need to monitor these small businesses and could focus on the larger producers whose producer responsibility obligations are to enable the UK to meet its Directive targets.

Environmental

4.46 The Government was unable to identify any additional environmental benefits.

Social

4.47 The Government was unable to identify any social benefits.

Option 2: lowering the £2m turnover threshold to £1m

Economic

4.48 Lowering the turnover threshold would increase the amount of packaging which is obligated under the packaging Regulations. This would decrease the gap between obligated and non-obligated packaging, thus arguably sharing the burden more equitably between producers. A higher level of obligated packaging would lower the business targets for existing businesses. This would reduce the costs for currently obligated businesses. Could also create a more level playing field for firms to compete on a sectoral basis.

Environmental

4.49 There are no additional environmental benefits of lowering the thresholds (because the Directive targets set the amount of packaging that needs to be recycled), although obligating smaller businesses could encourage them to focus on their packaging e.g. minimisation.

Social

4.50 The Government was unable to identify any social benefits.

Action based on consultations responses

4.51 The Government did not receive any comments in consultation responses that would suggest that a 'business as usual' was not the right approach to take. As a result the Government has concluded that no action is required in relation to this issue and the Regulations will not be amended.

5. COSTS

5.1 The following section considers the “**costs**” of the changes proposed in the consultation document and, in particular, the changes the Government will be making following consultation. This chapter focuses on the level of additional costs that will be placed on producers. The costs of each option are considered in terms of the following

- economic;
- environmental; and
- social benefits.

DATA SIMPLIFICATION

Option 1: “business as usual” option

5.2 This option would leave the Regulations as they are now i.e. smaller obligated businesses would continue to collect and provide data to the Agency.

Economic

5.3 Even for those businesses which are familiar with the packaging Regulations, collecting data throughout the year to carry out their data calculations and reporting data to the Agency can be costly. The Government has received reports from some businesses that it costs them several thousand pounds to collect packaging data each year. However, consultants¹⁹ commissioned by the Government to undertake work on this issue believe that the average SME spends 8.9 man days a year to collect packaging data which equates to about £1,000 a year.

Environmental

5.4 There will not be any environmental costs.

Social

5.5 The Government was unable to identify any social costs.

Option 2: the “locking” option

5.6 An obligated SME would be required to calculate its packaging obligation as normal in the first year and then this obligation would be ‘locked’ for the following 2 years. The obligation would then be calculated again for year 4 after which the ‘locked’ cycle would then be repeated.

¹⁹ Simplification of the Data Provision Requirement for Smaller Businesses in the Packaging Regulations by AEA Technology, November 2004.

Economic

5.7 In a “non locked” year the company has to provide data as now so the costs associated with the current regime would remain in these years. Conversely, in a “locked” year there would be reduced costs because the company would not need to collect data and there would also be reduced registration fees (see chapter 4). In a locked year the business would simply need to confirm that there had been “no significant changes²⁰” to the business.

5.8 Further costs revolve around the accuracy and the reliability of the data supplied. The Government is concerned that the accuracy of the data supplied in years 1 and 4 may diminish, particularly as a result of staff turnover i.e. they may not be familiar with gathering data. Also SMEs may find that internal expertise is lost in the intervening years and will resort to hiring consultants to carry out data work, a more costly option.

Environmental

5.9 There are two main environmental costs associated with the locked method. First, in the interim years when a company’s obligation is ‘locked’ there are no incentives for the company to minimise waste in terms of the packaging that it handles. Second, as a result of the latter there are a number of associated negative environmental effects depending on the packaging material in question and the type of recyclates used in their manufacture. For example, using more plastic packaging would increase the use of finite fuels e.g. oil, used to produce it, contributing to climate change, emissions etc. Increasing the amount of wood used, for example, removes habitats, reducing bio-diversity and decreasing ecosystem richness and the number of habitat micro-niches, whilst increasing the use of virgin materials. Using more glass, for example, contributes to greater energy use and therefore a larger environmental footprint of the business in question.

Social

5.10 It is possible that using packaging unsustainably in a work environment may filter into the home environment causing other peripheral unsustainable practices to become the norm such as leaving the lights on and wasting water. These are the only potential social costs that the Government has envisaged.

Option 3: the ‘allocation option’

5.11 Under this proposal a set tonnage would be allocated to smaller obligated businesses per £1m turnover, handling more than 50 tonnes of packaging.

Economic

5.12 Under this option the obligation attributed to a producer per £1 million turnover is a median value, calculated to ensure that the total obligated tonnage is sufficient to meet the targets set out in the Packaging Directive. As a consequence some companies may find that under this system their obligation will increase. As

²⁰ See Annex A for further explanation of a ‘significant change’.

demonstrated in Chapter 4, in most cases the costs of compliance will still be cheaper for many producers, even if their obligation increases due to the savings they can make from not having to calculate their obligation using the traditional approach. However, there could be a small number of cases where a producers' costs increase under this option.

Environmental

5.13 This option will not encourage companies to reduce the amount of packaging that they handle since they will simply be allocated a fixed obligation.

Social

5.14 There is the potential that using packaging unsustainably in a work environment may filter into the home environment causing other peripheral unsustainable practices to become the norm such as leaving the lights on and wasting water. These are the only potential social costs that the Government has identified.

Action based on consultations responses

5.15 After analysing consultation responses, the Government has decided that option 3 will be adopted on a voluntary basis. As a result of this the economic costs will be higher than they would have been if the allocation method had been mandatory. Some businesses may use the more expensive current option simply because they prefer it, not because it will save them money.

5.16 Providing this option to SMEs will ensure that all businesses will be able to choose the most financially viable option for them, while ensuring that the UK meets the environmental objectives set out in the Packaging Directive. Such an option is in line with the Governments aim of better regulation and ensures that the financial burden imposed by the Regulation is minimised, encouraging economic growth and improving the ability of UK companies to compete in the global market.

LOWERING OF THE TURNOVER THRESHOLD

Option 1: "business as usual"

5.17 Doing nothing would mean no change to the current Regulations so businesses with a turnover between £1 and £2 million would remain outside the scope of the Regulations.

Economic

5.18 The costs of meeting packaging targets would remain as now with existing producers.

Environmental

5.19 There will not be any environmental costs.

Social

5.20 The Government was unable to identify any social costs.

Option 2: lower the £2m turnover threshold to £1m

Economic

5.21 This option would obligate additional packaging and share the obligations amongst a greater number of businesses. However, it is estimated that whilst we would obligate 2,000 small businesses we would only obligate an additional 78,000 tonnes of packaging. There would be additional costs for those companies within the £1-2 million turnover band that are currently not obligated under the packaging Regulations (see section 6 for associated distributional costs).

5.22 Some of the fee currently paid by obligated businesses to the Agencies would have to be used, for example, to detect these small businesses and then spend time monitoring them once detected. The time and money the Agencies would need to spend as a result of lowering the thresholds is not considered to be a good use of Agency resources.

5.23 The additional 78,000 tonnes of obligated tonnage is the maximum that the Government expects to capture. In reality because new obligations take time to take effect, the Government can only really expect perhaps 50% of the tonnage. Businesses in the £1-2 million turnover range will be reasonably small, and with an average obligation of 39 tonnes the Government believes that the costs outweigh the benefits, and that the effort required to obtain such a small tonnage is not justified in terms of the costs to industry.

Environmental

5.24 The only environmental cost that the Government has identified was that obligated businesses would be expected to comply with the Regulations via the allocation method, so there are no incentives to minimise the amount of packaging handled.

Social

5.25 The Government was unable to identify any social costs.

Action based on consultations responses

5.26 No formal question was posed in the consultation paper on this issue, and no comments were received. Furthermore, the costs have not changed as a result of consultation.

6. Equity and Fairness

6.1 The proposals aim to simplify the reportedly disproportionate data collection and reporting burden for SMEs obligated under the packaging Regulations and ensure that any national obligations are shared as equitably as possible amongst all obligated businesses, without causing any additional problems in terms of fairness.

6.2 The Regulations have no undue effect on rural areas, racial groups, income groups, gender groups, age groups, people with disabilities, or people with particular religious views.

Option 2: lower the £2m turnover threshold to £1m

6.3 In calculating the potential distributional costs that could emerge by lowering the thresholds compared with the 'business as usual' option, a number of assumptions have been made. There is a lack of reliable data relating to these companies, as they are not currently obligated under the Regulations. Furthermore, the companies within this turnover range would have to supply data via the 'allocation' method, so assumptions concerning their turnovers must be made.

6.4 Potentially 2000 companies, representing about 78,000 tonnes of obligated packaging could be brought within the scope of the Regulations. Given that the average obligations for the allocation option in 2006, 2007, 2008 will be 25, 26 and 27 tonnes, respectively, the Government has assumed; for the purposes of assessing costs and obligations, that 50% of companies have a turnover of £1m and 50% have a turnover of £1.5m, therefore:

1000 companies @ £1m turnover, will have an obligation of $1 \times 1000 \times 25t = \mathbf{25,000}$ tonnes in 2006.

1000 companies @ £1.5m turnover, will have an obligation of $1.5 \times 1000 \times 25t = \mathbf{37,500}$ tonnes in 2006.

It is estimated that the total obligation for 2006 for these companies is therefore **62,500 tonnes**. Total obligations for 2006 to 2008, using the same assumptions as above are detailed in table 19.

Table 19: Estimated total obligations for 2006 to 2008 for companies in the £1-2m turnover band

Year	2006	2007	2008
Total obligation (t)	62,500	65,000	67,500

6.5 Other costs which need to be included are the days invested by the Agencies in monitoring these companies (not including free riding). The Agency has indicated that it will cost £562 to monitor direct registrants and £444 to monitor those that use schemes (although following the consultation this fee has now been reduced to £345). Currently 87 of the 1090 SMEs register directly with an Agency (approximately 8%). Applying this percentage to the 2000 businesses in the £1-2m turnover band, the Government estimates that approximately 160 will register

directly. The costs for Agency monitoring are therefore estimated to equate to $(1840 \times \text{£}345) + (160 \times \text{£}562) = \text{£}724,720$.

6.6 The tonnages in table 19 then have to be multiplied by the average PRN prices for 2006 to 2008 to ascertain the distributional costs involved. Table 20 gives an estimation of the total and individual company costs that would have to be absorbed if the turnover threshold was lowered.

Table 20: Estimation of the total and per company costs of lowering the turnover threshold.

	2006	2007	2008
Total obligation (t)	62,500	65,000	67,500
Total obligation cost ²¹ (£)	1,875,000	1,950,000	2,160,000
Agency monitoring fee ²² (£)	724,720	724,720	724,720
Total (£)	2,599,720	2,674,720	2,884,720
Average cost per business (£)	1,300	1,337	1,442

²¹ Estimated future average PRN prices from part 1 of the RIA, table A4 in Annex A multiplied by total obligation to give estimate of the cost, given as £30, £30 and £32 for 2006, 2007 and 2008 respectively.

²² Using ratio of current SMEs registering with a scheme and those registering directly with an Agency approximately 8% will register directly.

7. Consultation with small businesses: the small firms impact test

7.1 Businesses that do not simultaneously satisfy the two threshold tests in the Regulations (i.e. an annual turnover in excess of £2m and handle more than 50t of packaging) are excluded from the producer responsibility obligations in the Regulations. The proposed changes do not affect small businesses below these thresholds.

7.2 The Government has been in contact with the Small Business Service (SBS) and the Federation of Small Businesses (FSB). A copy of this RIA was sent with the consultation document to the SBS and the FSB.

8. Competition assessment

DATA SIMPLIFICATION

8.1 The consultants commissioned last year to take forward this work identified 1090 smaller obligated businesses i.e. businesses with a turnover between £2-5 million. Proposals were put forward to reduce the data collection, calculation and reporting burden placed on smaller business. Most, if not all, of these businesses will notice a reduction in costs as a result, but as with the other proposals the overall costs on the businesses will depend on their size. The size of the financial burden resulting from these changes, will be placed on businesses in proportion to their turnover. It will therefore affect all businesses in an equal way. The adoption of the allocation method for SMEs may offer a fairer system of charging than the traditional approach, since a company that handles a large amount of packaging, but has a small turnover will not be disproportionately penalised, in economic terms.

8.2 The Government does not expect the changes to the Regulations to affect the current market structure or change the number or size of firms. New businesses will not face higher charges than existing companies and the proposals should not restrict businesses choice of products. Although the Government is not aware of the sector being characterised by rapid technological change there may be instances where this is the case.

LOWERING OF THE TURNOVER THRESHOLD

8.3 The Government will not be lowering the turnover threshold.

9. Enforcement and Sanctions

9.1 The packaging Regulations are enforced by the Environment Agency in England and Wales and by the relevant agencies in the other Devolved Administrations.

9.2 The consultation documents and associated RIAs did not include proposals for additional sanctions.

10. Monitoring and Review

10.1 The UK packaging system is monitored continually by Government, the Agencies, the Advisory Committee on Packaging and industry generally.

10.2 Accredited reprocessors and exporters are required to provide quarterly returns to the Agencies, which include data on the amount of reprocessing that has taken place that quarter. This enables the Government to track progress throughout the year against packaging targets. This data is also published on the Defra website so that industry too can monitor the UK's performance.

10.3 Each year, the Department produces a Data Note which shows current and historical packaging data including for instance the amount of reprocessing that has taken place each year and the corresponding information on PRN and PERN revenue.

10.4 Furthermore, the UK is required to provide the European Commission with data, 18 months after the end of each year.

10.5 The Advisory Committee on Packaging, which represents the packaging industry, also monitors the effectiveness of the packaging Regulations and advises Government as and when changes are needed. The ACP was responsible for the majority of changes made to the Regulations in 2003 and also for the main changes this year. The Government expects the Committee to continue to provide input in the future.

11. Consultation

11.1 Within Government

DTI, Treasury, Cabinet Office, Scottish Executive, Welsh Assembly Government, Northern Ireland Administration, Environment Agency, EHS NI, SEPA, Small Business Service.

11.2 Public Consultation

This RIA accompanied a Government consultation document and presented overall costs and benefits of the proposed changes. The Government consulted for a period of twelve weeks and this RIA has been finalised in light of comments received from stakeholders.

12. Summary and Recommendation

12.1 This RIA considers a number of changes to be made to the packaging Regulations which are designed to improve the working of the system, including reducing the data, collection and reporting burden placed on smaller obligated businesses. Below is a summary table of the options consulted upon and the changes being made following the consultation.

Table 21: Summary table of costs and benefits of all the options outlined within the RIA

PROPOSAL	BENEFIT	COST
Data Simplification	Reduce burden of data collection and reporting burden on smaller obligated businesses.	Dis-incentivises waste minimisation.
Option 1 – business as usual	Reduce costs. Encourages packaging reduction and waste minimisation and increased packaging waste recovery.	Disproportionately burdensome to smaller businesses in terms of resources, time and costs. Total cost to the 1090 small businesses would be £5,149,470 excluding PRN costs; the PV of this cost stream is £4,977,296.
Option 2 – locking data	Some reduced costs and time savings in interim years. 18,312 employee days saved to 1090 SMEs between 2006-2008. The cost benefits from 2006 – 2008 would be £2,848,822 excluding PRN costs, the NPV of this cost stream is £2,715,548.	Less reliable/inconsistent data. No incentive for waste reduction. Negative environmental impacts of not minimising packaging use in terms of emissions, energy, use of virgin materials, resource/dynamic efficiencies. Negative social impacts, as unsustainable practices may filter from work to home environment. Potential loss of obligated tonnage will be borne by

<p>Option 3 - allocation</p>	<p>Less burdensome in terms of data gathering and reporting, which reduces costs. Companies can invest time and money saved in more sustainable internal practices.</p> <p>The cost benefit to all 1090 small businesses from 2006 – 2008 would be £1,400,607 excluding PRN costs and NPV of £1,353,780.</p> <p>27,468 employee days saved to 1090 SMEs between 2006-2008.</p>	<p>other obligated companies, although unlikely to affect targets.</p> <p>Not incentivising waste reduction.</p> <p>Dis-incentivises waste minimisation.</p> <p>Negative social impacts, as unsustainable practices may filter from work to home environment.</p>
<p>Lower turnover threshold</p> <p>Option 1 – business as usual</p> <p>Option 2 – lower the £2m turnover threshold to £1m</p>	<p>Brings in additional businesses to spread the obligation more widely amongst obligated businesses.</p> <p>No costs for the 2,000 potentially obligated £1-2 million turnover companies.</p> <p>Potentially reduces cost of compliance for the population of obligated companies as a whole (although tonnage concerned unlikely to affect targets).</p>	<p>Additional costs for companies within the £1-2 million turnover band.</p> <p>Extra Agency monitoring required, leading to higher fee.</p>

	<p>Spreads the obligation more widely.</p>	<p>Unlikely that Government will obtain all 78,000 obligated tonnes for effort invested.</p> <p>No incentive to minimise waste.</p> <p>Disproportionate to the effort required to monitor and obligate these companies.</p>
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13. Proposals for technical changes

The Government does not envisage any significant environmental and social costs and benefits in terms of the changes set out in the table below.

Option	Total cost per annum Economic, environmental, social	Total benefit per annum Economic, environmental, social
<p>Producer Operational Plans – current requirement to provide plans if turnover over £5 million, Government proposes to change this to be 500 tonnes instead.</p> <p>78% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>	<p>This change is unlikely to place higher costs on any particular businesses because the same requirements as now will be placed on those businesses which are required to provide a plan.</p>	<p>Reduced costs on some businesses. Number of plans required would fall from 463 at present to 110.</p>
<p>Paragraph 11(j) in Part IV of Schedule 4 – propose to amend this paragraph so that it requires a statement rather than a strategy.</p> <p>98% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>		<p>This change will lead to reduced costs on businesses who currently produce a detailed strategy.</p>
<p>Fees for late submission of data – proposal to apply a late fee of £110 per producer.</p> <p>71% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>	<p>Additional cost to businesses that do not register by the 7 April regulatory deadline.</p>	<p>Currently the Agencies are not recovering the full costs incurred by producers registering late, therefore this fee will correct this anomaly.</p>
<p>Simplification of schedule 9 – propose to amend schedule 9 to move away from a situation where a group obligation is split mid-year between two groups/parties. Obligation remains with the</p>	<p>Overall change likely to be cost neutral. Some companies may pick up higher costs under the present system, but there will be other groups with lower costs.</p>	<p>Change does not split the obligation between groups of companies mid-year.</p>

<p>first group for the whole year, irrespective of any group changes.</p> <p>86% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>		
<p>Fee for changes to exporters client base – propose to charge exporters a fee if they wish to add new overseas reprocessors mid-year. Charge will be to cover cost to EA of monitoring change.</p> <p>88% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>	<p>£110 Environment Agency cost recovery fee charged each time a reprocessor changes its list of foreign reprocessors to cover the cost of scrutiny.</p>	<p>Will allow exporters greater flexibility in who they deal with. Will allow exporters to change reprocessors as the market changes providing benefits to the competitiveness of the export industry.</p>
<p>Ability to serve notices – proposes amendments that allow EA to serve notices on schemes, reprocessors and exporters who fail in their obligations.</p> <p>94% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>	<p>Cost neutral.</p>	<p>Better enforcement of the regulations.</p>
<p>Reasonable Steps – proposed that the phrase ‘reasonable steps’ should be removed from the regulations. Failure to obtain the required number of PRNs will be a matter for the courts.</p> <p>79% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>	<p>Cost neutral.</p>	<p>Should help to ensure that the UK meets the Directive targets in 2008.</p> <p>Greater clarity for business as to what is required.</p>
<p>Definition of Packaging Waste – Changing the wording of the definition of packaging waste to state that raw material cannot be used to count</p>	<p>Cost neutral.</p>	<p>Increased clarity.</p>

<p>towards a producer meeting their obligations until after they have been transformed into packaging.</p> <p>81% of responses agreed with the proposed change. However, the Government has considered this matter further and believes that the Regulations already sufficiently deal with this point. The Regulations will not be amended.</p>		
<p>Rounding of Figures – Allowing calculations of amount of packaging handled to be rounded down as well as up.</p> <p>98% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>		<p>May save businesses time and money.</p>
<p>Schedule 6 – removing the requirement for producers to supply original copies of the data submitted to agencies with their certificates of compliance.</p> <p>98% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>		<p>Small cost saving as producers will only have to supply data once.</p>
<p>Schedule 8 – Clarifying that businesses whose holding companies are abroad are treated on an equal basis with those whose parent companies are in the UK.</p>	<p>Costs to companies whose parent companies are abroad if they did not previously declare full obligation.</p>	<p>If there are additional obligated businesses, this will distribute the burden of the meeting the targets amongst a greater number of businesses.</p>
<p>Transposition of new terms set out in the new packaging Directive – updates to the definition of waste to be included in revised regulations which will also specifically state that any treatment</p>	<p>Exporters may have to spend time and money ensuring that the foreign reprocessors are of an equivalent standard to those in the UK, although the Environment Agency already</p>	<p>Improved certainty that the quality of treatment abroad is to the highest environmental standards.</p> <p>Compliance with a Directive requirement.</p>

outside the EEC must be "broadly equivalent" to that within the EEC.	requires scrutiny of overseas reprocessors.	
<p>Charities – Ensuring that charities are only excluded from being obligated under the regulations to carry out recovery and recycling, not from being accredited to issue PRNs.</p> <p>86% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>		Increased number of accredited treatment facilities, which should help the UK meet 2008 targets.
<p>Public register – increasing the amount of information in the public register relating to reprocessors and exporters.</p> <p>98% of responses agreed with the proposed change. The Regulations will be amended accordingly.</p>	Extra administration costs associated with supplying information.	Improved access to information.

Declaration

I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.

Signed: ***Ben Bradshaw***

Date: ***22nd November 2005***

Ben Bradshaw

Minister for Local Environment, Marine and Animal Welfare

Department for Environment, Food and Rural Affairs

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Annex A

'SIGNIFICANT' CHANGES'

Since your company last carried out an assessment of packaging tonnages according to the requirement to be "as accurate as reasonably possible", has any of the following significant changes taken place?

1. Have you acquired or disposed of any businesses that handle packaging?
2. Have you changed the main packaging material that you handle for another (for instance a switch from bottles in one material for another)? A switch of 25% of your packaging tonnage is regarded as significant.
3. Have you introduced any new products that are differently packaged from your normal format, or discontinued any such products? A new line representing 25% of your output, or an equivalent discontinuation, would be significant.
4. Have you changed between UK and overseas suppliers, to the extent of at least 25% of your packaging or packaged goods purchases?
5. Has your UK market, expressed as a percentage of your total UK and export sales increased, by more than 25%.
6. Are you undertaking any new activities on your packaging (making raw materials, converting to make empty packs, filling packs, or selling them), or have you discontinued any activities?

If the answer to **all** the above questions is "NO", sign the declaration below and return to.....

Provided that your company turnover in both financial years ending in 2003 and 2004 was below £5million, you are permitted to employ the simplified locked ratio packaging calculation for a further year.

MY TURNOVER IN THE FINANCIAL YEAR ENDING IN 2005 WAS.....

MY CALCULATED OBLIGATION FOR 2005 WAS.....

Regulatory Impact Assessment of Changes to the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended)

Meeting Directive Targets In 2008

Department for Environment, Food and Rural Affairs
Scottish Executive
Welsh Assembly Government

November 2005

Contents

Chapter	Page
Contents	109
List of tables and figures	110
1. Introduction	112
2. Proposals	114
<ul style="list-style-type: none">• Title of proposal• Purpose and intended effect of measures• Risk assessment	
3. Options	122
4. Benefits	139
<ul style="list-style-type: none">• Economic• Environmental• Social	
5. Costs	149
<ul style="list-style-type: none">• Economic• Environmental• Social	
6. Equity and fairness	155
7. Consultation with small business: the Small Firms Impact Test	156
8. Competition assessment	157
9. Enforcement and sanctions	158
10. Monitoring and review	159
11. Consultation	160
12. Summary and recommendations	161
13. Technical Changes	164
14. Annex A	166
15. Annex B	173

List of figures and tables

- Table 1: Totals in UK waste stream 2006-2008, published November 2003 (data now overtaken)
- Table 2: Packaging arising in the UK waste stream 2006-2010
- Table 3: Estimated obligated tonnage 2005 to 2010 – excluding any additional tonnages (e.g. from leased and franchise packaging)
- Table 4: Additional net obligated tonnages expected to be added to the obligated figures from the proposals on leased and ‘franchise’ packaging
- Table 5: Estimated obligated tonnage 2006-2010 including obligated tonnages from leased and ‘franchise’ packaging
- Table 6: Recovery and recycling, UK 2004
- Table 7: Glass starting point for glass demand in 2005
- Table 8: Option 1 - business as usual - i.e. excludes additional leased and franchise obligated tonnages, uses latest figures for packaging arising in the UK waste stream and uses the targets as published in November 2003
- Table 9: Option 2 - includes additional leased and franchise obligated tonnages targets as published in November 2003, uses latest figures for packaging arising in UK waste stream and uses the targets as published in November 2003
- Table 10: Option 3 - includes leased and franchise additional obligated tonnages, equal increases year on year and uses latest figures for packaging arising in UK waste stream and sets targets to meet Directive targets
- Table 11: Option 4 - i.e. includes leased and franchise additional obligated tonnages, uses latest figures for packaging arising in UK waste stream and sets targets to meet Directive targets, but with front loaded rises
- Table 12: Option 5 - includes leased and franchise additional obligated tonnages, uses latest figures for packaging arising in UK waste stream and targets are back-loaded
- Table 13: Option 6 - includes leased and franchise additional obligated tonnages, uses latest figures for packaging arising in UK waste stream and sets targets to just meet Directive targets
- Table 14: Option 7 – “Post Consultation Option” - includes leased and franchise additional obligated tonnages, uses latest figures for packaging arising in UK waste stream and sets targets in roughly equal increments

- Table 15: Avoided financial cost of landfill (incremental to Option 1 BAU)
- Table 16: Avoided damage cost of reductions in CO₂ and CO₂ equivalent (incremental to Option 1 BAU)
- Table 17: Total benefits from reduction in CO₂ equivalent, avoided financial cost and disamenity from landfill
- Table 18: Costs (Incremental to BAU and net of revenues from sale of materials) £m
- Table 19: Net Benefit of Packaging Targets to the 2008 Directive target
- Table 20: Net Benefit of Packaging Targets 2006 to 2010
- Table 21: Summary table
- Table 22: Costs estimates for collecting and recycling packaging waste from the C&I waste streams
- Table 23: Costs estimates for collecting and recycling packaging waste from the household waste stream
- Table 24: Packaging waste (in tonnes) sourced from C&I and Household waste streams under the Government's preferred option (scenario 3)
- Figure 1: Options Sheet of the Model
- Figure 2: Example of Effect of Cost Elasticity
- Figure 3: Example price ranges for material reprocessed to meet individual and overall targets

Regulatory Impact Assessment

1. Introduction

1.1 This Regulatory Impact Assessment (RIA) accompanied the Defra consultation paper on 'Meeting the Directive Targets in 2008' published August 2005 and applies to businesses obligated under the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended) (henceforth "the packaging Regulations").

1.2 The consultation paper on 'Meeting the Directive Targets in 2008' considered what business recovery and recycling targets for packaging waste are needed in 2006, 2007 and 2008 to ensure that the UK meets the targets that are in the EC Directive on Packaging and Packaging Waste 94/62/EC as amended by the new Directive 2004/12/EC by 31 December 2008. The consultation paper also set out indicative targets up to 2010; and discussed a number of other measures that are considered necessary to ensure that the right degree of focus is given to the 2008 targets, as well as to the interim targets to be met, en route, in 2006 and 2007.

1.3 The packaging Regulations obligate businesses which handle more than 50 tonnes of packaging and have an annual turnover in excess of £2 million to carry out recovery and recycling of packaging waste, to enable the UK to meet its legally binding targets under the EC Directives on Packaging and Packaging Waste 94/62/EC and 2004/12/EC.

1.4 This RIA discusses the changes that were proposed in the consultation document, which included the following:

- business recovery and recycling targets for packaging waste in 2006, 2007 and 2008; indicative targets for 2009 and 2010;
- changes to the scheme approval regime;
- scrutiny of schemes' and large producers' operational plans.

1.5 This RIA accompanied a Government consultation document and presents overall costs and benefits of the proposals and, in particular, the changes that will be made following the consultation.

Compensatory Simplification Measures

1.6 In addition to the changes that were proposed in relation to the scheme approval regime (i.e. in order to simplify and clarify the current procedures), the Government put forward two further compensatory simplification measures.

1.7 The Government has decided to consolidate the packaging Regulations this year, which will mean that industry will no longer need to refer to the original 1997 Regulations and the six Statutory Instruments amending these Regulations, but rather one set of Regulations.

1.8 Earlier this year the Government consulted (see Consultation Paper on Measures to Increase Obligated Tonnage and accompanying RIA) on proposals for reducing the data reporting burden on smaller obligated businesses (i.e. businesses with a turnover between £2 and 5 million). The majority of responses were in favour of the proposal to allocate small businesses a recovery obligation, which will mean that they will no longer need to go through (what is considered by some businesses to be) a costly and time consuming data collection exercise. However, a number of responses suggested that smaller businesses should be able to continue with the current system, if they so wish, even though it may be more burdensome. The Government has taken these comments on board and whilst smaller obligated businesses will be able to choose how their recovery and recycling obligations are determined, they must use, whichever method they choose for a period of three years.

2. PROPOSALS

Summary

2.1 This chapter of the RIA considers the purpose and intended effect of each measure. This includes sections on: the objective of the change; the background; and the risk associated with each. The costs and benefits of each option and, in particular, the changes that will be made following consultation are discussed in sections 4 and 5. The Government's "Consultation Paper on Meeting Directive Targets in 2008" put forward proposals to:

- amend the UK business targets for 2006 – 2008, since following changes to underlying data used to calculate the current targets, in 2003 (in particular the amounts of packaging entering the UK waste stream) the existing business targets in the Regulations for 2008 no longer achieve the Directive targets in that year;
- set indicative targets for 2009 and 2010 following advice from industry which seems prudent, since we expect the Commission to announce new targets in 2007 for the five year period following 2008;
- simplify and clarify the scheme approval regime i.e. require schemes to apply for approval each year from the Secretary of State and clarify what happens when a scheme fails to discharge its members obligations;
- require compliance schemes and large producers to send their operational plans to Defra/Scottish Executive as well as the appropriate Agency (as at present) to enable a greater degree of scrutiny, which should give the UK greater confidence that the 2008 Directive targets will be met.

BUSINESS RECOVERY AND RECYCLING TARGETS

PURPOSE AND INTENDED EFFECT OF MEASURE

Objective

2.2 To amend the business targets for 2006 to 2008 to help ensure that the UK meets the recovery and recycling targets in the revised Packaging Directive 2004/12/EC by 31 December 2008.

Background

2.3 The EC Directive on Packaging and Packaging Waste aims to harmonise national measures concerning the management of packaging waste. Its main priorities are to prevent the production of packaging waste, to reuse packaging where possible, to recycle and recover packaging waste in other ways and to reduce the final disposal of packaging waste.

2.4 The Directive is implemented by (i) the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended); and (ii) the Packaging (Essential Requirements) Regulations 2003 (as amended).

2.5 The 2004/12/EC Directive sets targets for Member States to meet by 31 December as follows –

A minimum of 60% recovery; Recycling of between 55% and 80%; Differentiated minimum material-specific recycling targets of Paper 60%; Glass 60%; Metals 50%; Plastic 22.5%; Wood 15%.
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2.6 On the advice of the Advisory Committee on Packaging (ACP), the Government has already set target interim business targets for 2004 to 2008, however, towards the beginning of 2005, the Government was alerted to changes in the underlying data used to calculate the existing targets in 2003. Therefore, in order to maintain the UK's momentum towards 2008, a thorough review of the targets was warranted.

2.7 The business target scenarios proposed in the consultation document took into account the new estimates for the amount of packaging entering the UK waste stream each year; the possible rises in obligated tonnage i.e. from obligating leased and franchise packaging; and the recommendations from the Advisory Committee on Packaging (ACP) and Industry.

2.8 Although, the Directive targets need to be met in 2008, the ACP and industry have recommended once again that we should set targets for the next 5 years i.e. for the period 2006-2010. The Government has taken on board the Committee's recommendation particularly in light of the fact that we expect the Commission to announce new targets in 2007 for the next 5 year period.

Risk Assessment

2.9 The business targets in the Regulations for 2006 – 2008 need to be amended to ensure that the UK will be able to increase its recovery and recycling rates between 2006 and 2008 in a way which will allow the UK to meet the targets in the revised Packaging Directive in 2008. Failure to meet the targets could potentially result in infraction proceedings against the UK and, in the worst case, the imposition of financial penalties.

2.10 The UK packaging waste recovery system and its use of the market has been successful so far in achieving targets for the recovery and recycling of packaging waste at a low cost to UK industry. However, in 2001, insufficient packaging waste was recovered and the UK failed to meet the overall recovery target set in the original Directive. In 2002, and subsequent years these targets were met. Although the UK

has not been infringed for our failure in 2001, it is essential that the UK achieves the 2008 Directive targets; and this is what the business targets discussed in the consultation document and this RIA are designed to do.

2.11 In developing target scenarios, it is assumed that those businesses that are obligated under the packaging Regulations will comply with their obligation. There is, however, a risk that obligated businesses might not comply, or might under-report their obligation, and if this occurs, there is a risk that targets may not be met. The Government has therefore built into the business targets a slight cushion (as we did when we set the existing targets in the Regulations for 2008) to ensure that if some producers should fail to meet their obligations (as was the case in 2001), that the UK as a whole will not fail to meet the 2008 Directive targets.

2.12 If we do not increase the amount of packaging waste that is recycled to Directive levels, packaging waste will continue to end up in landfill. Landfill is not a sustainable way of disposing of waste. In addition to the space additional land filling would require, there are a number of other adverse environmental effects:

- possible damage to soil and water quality through leaching from landfill sites;
- climate change primarily through the release of methane gas;
- disamenities such as noise and odour.

2.13 Not achieving an increase in the recovery and recycling of packaging waste is likely to have other consequences such as the loss of environmental benefits that will occur due to the potential net reductions in climate change emissions. Recycling of packaging results in reductions in emissions of CO₂, because less energy is used to produce recycled raw materials than in the production of virgin raw materials for packaging. This is particularly the case for materials such as aluminium, which are energy-intensive to extract and process.

2.14 Increased collection and recycling of packaging waste could also have social benefits by acting as a driver for collection of other waste streams. Increased recovery and recycling of packaging waste could also have amenity benefits by contributing to a decrease in the amount of packaging litter. Higher levels of packaging waste recycling will also contribute to the achievement of the recycling targets in the Government's Waste Strategies through recovery from the municipal waste stream.

CHANGES TO THE SCHEME APPROVAL REGIME

PURPOSE AND INTENDED EFFECT OF MEASURE

Objective

2.15 To amend the scheme approval process to give the UK greater confidence that the UK system will deliver the Directive targets in 2008.

2.16 The Government's consultation paper proposed amending the Regulations to

- require schemes to apply for approval from the Secretary of State/ Ministers annually;
- require schemes to send their operational plans to Defra or the Scottish Executive with their application; and
- clarify what happens when a scheme fails to meet its recovery and recycling obligations.

Background

2.17 Compliance schemes have to apply for approval from the relevant Secretary of State or Minister before they can be registered (see regulation 12 (4A)). Under current arrangements, there is no need for re-application except in certain circumstances (a change of operator, a failure to meet obligations or conviction of an offence). However, the Government proposed that schemes should henceforth be required to re-apply for Approval from the Secretary of State/Minister each year.

2.18 The Government has also been considering how to put greater resource towards the scrutiny of schemes' and larger businesses' operational plans without adding to producers' and schemes' registration fees. The Government therefore put forward a proposal which would require scheme operators and larger businesses who must currently supply an operational plan to the Agency, to submit these also to Defra (or the Scottish Executive) who will add to the resource already directed at the scrutiny of operational plans by the Agencies.

2.19 For compliance schemes, the simplest route would be to require the operational plan to be submitted to Defra together with the proposed re-application for approval. Thus, if the proposals were accepted, schemes –

- would be required to re-apply for approval from the Secretary of State/Minister annually by 31 January;
- in re-applying, it would submit a copy of its operational plan covering the next 3 years (as required now).

Defra/ Scottish Executive would then scrutinise the plans as part of their consideration of the re-application for approval.

2.20 The Government also proposed making some changes to clarify what happens where a compliance scheme has failed to meet its recovery and recycling obligations in the previous year. The following was proposed –

- where a scheme's certificate of compliance shows that the scheme has failed to meet its tonnage recovery/recycling obligations in the previous year, the relevant Agency will inform Defra (or SEPA to inform the Scottish Executive in Scotland) of this by 15 February;
- this circumstance will then form part of the consideration of the scheme's re-application for approval which will have been submitted on or before 31 January.
- in considering a re-application for approval from the Secretary of State/Minister from a scheme that failed to meet its obligations in the previous year, it

was proposed that there should be three possible responses, the third of which is new –

- a. grant approval for the next obligation year;
- b. refuse approval;
- c. grant conditional approval.

iv. where conditional approval is granted, the following conditions would have to be adhered to by the scheme –

- a. to purchase evidence of compliance in relation to half of its obligations for the current year by the end of the second quarter and to purchase a further quarter of its total obligations by the end of the third quarter of the year;
- b. to report to the relevant Agency at the end of the second quarter on what has been purchased in the first two quarters of the year; and to report to the relevant Agency on what has been purchased by the end of the third quarter. [The existing rules on end of year reporting would continue to apply];
- c. to pay to the relevant Agency an additional fee of £110 per member to cover the costs of processing this quarterly information and monitoring compliance with it;
- d. to cease recruitment and accept no new members during the year in question.

2.21 Although a scheme may have failed to meet its targets one year, it may be granted approval in the next year, e.g. where the failure concerned is deemed to be for acceptable reasons. Where ‘conditional approval’ is granted, it is expected that this would be on the basis of the following criteria –

- the scheme failed to meet the recovery obligation by very little (e.g. by no more than 1 percentage point) and did meet the overall recycling obligation;
- the scheme failed to meet the overall recycling obligation by very little (e.g. no more than 1 percentage point) and did meet the overall recovery obligation;
- the scheme failed to meet material-specific recycling obligations for 2 or fewer of the 6 materials; but it did not fail any one material specific recycling requirement to a significant degree;
- there are other circumstances which demonstrate a slight failure or ‘near miss’.

2.22 It may also be the case that a scheme which met its recovery and recycling targets in the previous year is awarded only conditional approval on re-application. This is likely to occur where, the scheme has had three or more breaches of requirements, e.g. late submission of data, problems with the operational plan, late application of registration etc. The conditional approval would be granted on a “3 strikes and you’re out” basis.

Risk Assessment

2.23 The Government did not propose attaching an offence to operational plans that are deemed to be unsatisfactory. However, since Defra will be considering these as part of the consideration of the re-application for Approval, it will be open to Defra or the Scottish Executive to withhold approval if it considers an operational plan to be unsatisfactory. If a scheme has not obtained approval, it cannot be registered. The Regulations do not permit the Agencies to register a scheme unless it has obtained the approval of the Secretary of State or the relevant Minister.

2.24 The advantage of allowing conditional approval to a scheme that may have failed to comply in the previous year, and which may therefore be the subject of an Agency inquiry, is that the scheme may be registered, and the producers that are members of that scheme will have some clarity about what they need to do that year. They will also be aware that their scheme was not performing as well as it might have and can take whatever action they wish in these circumstances. By adding clarity about what happens when a scheme has failed in the previous year, the Government considered these proposals are in the interests of the system, and of the functioning of the market in the first half of the year.

2.25 Conditional approval would last throughout that obligation year. The Government believes that it is unlikely that a scheme that has been given conditional approval in one year will be given this again, since this would mean that there was still a problem connected with the scheme's performance. However, it is felt that it would be best not to specifically exclude the possibility of this, since circumstances may arise which are not evident just now.

SCRUTINY OF SCHEMES' AND LARGE PRODUCERS' OPERATIONAL PLANS

PURPOSE AND INTENDED EFFECT OF MEASURE

Objective

2.26 To increase the level of scrutiny given to operational plans, again to give the UK greater confidence that the UK system will deliver the Directive targets in 2008.

2.27 The changes the Government proposed in the consultation document would require schemes and large producers (handling more than 500 tonnes of packaging) to continue sending their operational plans to the relevant Agency each year and in addition a copy would need to be submitted to Defra (or the Scottish Executive). Defra (or the Scottish Executive) would be looking at the plans to ensure that schemes and large producers are not only thinking about the 2008 Directive targets, but also that they are taking steps now to ensure we meet the targets in 2008.

Background

2.28 The Government believes that additional scrutiny is needed of operational plans and proposed that Defra (and the Scottish Executive) should be involved in the

scrutiny of the plans. This would allow scrutiny of, for example, the degree to which the schemes and producers have focused on the 2008 targets and have considered the practical steps necessary to achieve these. It would also allow greater scrutiny of the aggregate effect of the plans on meeting the targets in 2008 and the interim targets in 2006 and 2007; and whether the reported arrangements that all schemes and large producers have with reprocessors hold up when the capacity of reprocessors is taken into account; and the degree to which those making arrangements to comply in 2008 have taken account of the need to increase collection of packaging waste to the level required to meet the 2008 targets. In the same vein, the Government believes that the schemes and large producers should be required to state, when submitting their plan, that they have set out how they propose, in detail, that they will meet their 2008 targets as well as the interim targets in 2006 and 2007. This statement should be signed off by the same person that signs off the data forms and the certificate of compliance.

2.29 Thus, under the proposals put forward in the consultation document, the scrutiny of operational plans would be shared between the Agencies and the Department/Scottish Executive. In order to undertake this work on a systematic basis, the Department is commissioning work to establish an IT-based scrutiny system which, together with a qualitative assessment, should allow the operational plans to be considered more fully in terms of their environmental and economic robustness both individually and taken in aggregate. It is also intended that consultants with specific expertise in this field will feed into this in-depth scrutiny in the first quarter of the year, to assess operational plan credibility. The fundamental question remains that of considering whether sufficient detailed planning is being put in to allow the UK to meet its Directive targets in 2008 – that is whether sufficient packaging waste is going to be collected and recycled or recovered to meet the overall recovery, overall recycling and material-specific targets in the Directive. The Government believes that additional scrutiny of plans is required to ensure a move away from the short-termism that is currently prevalent. Annex B sets out further information about the Government's proposed approach.

2.30 The Government suggested that it may be desirable to develop a two-part 'operational plan template' for the submission of plans. Agency guidance could stipulate the type of qualitative information which is sought in part A; and part B (to be designed by consultants) could be in the form of a specific template, as suggested below:

- **part A** would make up the majority of the qualitative information as required by the Regulations and expanded in the Environment Agency 'guidance on operational plans'. The Government would not *require* this information in the format of a specific template but would set this down in guidance.
- **part B** could take the form of an Annex and could contain any commercially sensitive information. It could also be in the form of a specific excel template into which all schemes and large producers would enter their information. Schemes and large producers would be expected to send in their operational plans in electronic format so that the data in Part B could then be uploaded into the database relatively easily.

2.31 Having operational plans in this format would enable the information in them to be entered into the scrutiny database fairly easily. This would allow more successful monitoring of plans which, the Government believes, is of interest and value to all producers (and their schemes) with obligations.

Risk Assessment

2.32 It is estimated from Environment Agency data that the Government would be required to scrutinise approximately 20 compliance scheme plans and 110 large producer plans from 2006 onward. The additional scrutiny of these plans could help reduce the risk of the UK failing to meet the 2008 Directive targets. The Government would scrutinise the plans using a largely IT-based system to assess whether the operational plans, individually and in aggregate, are sufficient to meet the 2008 targets i.e. whether there is going to be sufficient packaging waste collected and recycled or recovered to meet the overall recovery, overall recycling and material-specific targets in the Directive.

3. OPTIONS

Summary

3.1 This chapter discusses the options that the Government put forward for each of the proposals in the “Consultation Paper on Meeting Directive Targets in 2008 and also describes the option/action that is going to be taken in light of consultation responses. The proposals were to –

- amend the existing business targets for 2006 – 2008 and set indicative targets for 2009 and 2010. Six options were discussed and the Government’s preferred option was target scenario 3, since it followed the advice of the Advisory Committee on Packaging to set targets in a straight line from 2006 – 2008. In light of consultation responses and the latest data available (following the consultation period), the Government has finalised the targets to be set (see option 7).
- amend the scheme approval regime. Two options were put forward and option 2 was the Government’s preferred approach. Option 2 suggested that compliance schemes should be required to apply for approval annually from the Secretary of State and proposals to clarify what happens when a scheme fails to discharge its members obligations. The majority of consultation responses were not in favour of the Government requiring schemes to seek approval annually, however, they did agree to the introduction of “conditional approval”.
- increase the level of scrutiny given to scheme and large producer operational plans. Two options were put forward and again option 2 was the Government’s preferred approach. Option 2 suggested that schemes and large producers should be required to send their operational plans to Defra as well as the appropriate Agency (as at present) to enable a greater degree of scrutiny, giving the UK greater confidence that we will meet the next Directive targets. The majority of consultation responses favoured option 2.

BUSINESS RECOVERY AND RECYCLING TARGET SCENARIOS

3.2 To exemplify targets for 2006-2008, the main data required are –

- i. the totals for packaging flowing into the UK waste stream;
- ii. the level of packaging that is ‘obligated’;
- iii. the level of recovery and recycling achieved in the previous year; and
- iv. any other relevant information such as, for example, any surpluses in any of the materials.

(i) Tonnage flows into the UK waste stream

3.3 The most recently *published* data on packaging flowing into the UK waste stream are the figures published by Defra on 20 November 2003 (together with the targets for 2004-2008). These figures are shown in Table 1.

Table 1: Totals in UK waste stream 2006-2008, published November 2003 (data now overtaken)

	2006	2007	2008
Paper	3,725,652	3,725,652	3,725,652
Glass	2,400,000	2,400,000	2,400,000
Aluminium	141,500	141,500	141,500
Steel	680,860	675,754	670,685
Plastic	1,958,385	2,017,137	2,077,651
Wood	1,403,694	1,403,694	1,403,694
Other	22,000	22,000	22,000
Total	10,332,092	10,385,737	10,441,183

3.4 **These data have now changed.** Work has recently been carried out by the Advisory Committee on Packaging's (ACP) Data Task Force and Valpak working together with consultants, the Material Organisations and other stakeholders to review the figures for packaging flowing into the UK waste stream, including the assumed growth rates for each material. A separate, thorough review of data was also carried out by British Glass and the figures for glass have been agreed by the ACP and British Glass together. The Government also asked the ACP for its advice on all the figures relating to packaging arising in the UK waste stream and for the indicative figures up to 2010; these are the figures the Government has used to exemplify targets up to 2008 and the indicative targets up to 2010.

3.5 Table 2 below shows the estimates that the Government is using for packaging flowing through to the UK waste stream in 2006-2010.

Table 2: Packaging arising in the UK waste stream 2006-2010

	2006	2007	2008	2009	2010
Paper	3,762,909	3,800,538	3,838,543	3,876,928	3,915,698
		+1%	+1%	+1%	+1%
Glass	2,600,000	2,650,000	2,700,000	2,750,000	2,800,000
		+1.9%	+1.9%	+1.85%	+1.8%
Steel	682,575	679,162	675,766	672,387	669,026
		-0.5%	-0.5%	-0.5%	-0.5%
Aluminium	142,915	144,344	145,788	147,245	148,718
	+1%	+1%	+1%	+2%	+1%
Plastic	2,079,865	2,121,462	2,163,891	2,207,169	2,251,312
	+2%	+2%	+2%	+2%	+2%
Wood	1,180,000	1,191,800	1,197,759	1,203,748	1,203,748
		+1%	+0.5%	+0.5%	0
Other	23,000	23,000	23,000	23,000	23,000
Total	10,471,264	10,610,306	10,744,747	10,880,477	11,011,502

(ii) Obligated packaging

3.6 The level of obligated tonnage is the key factor in exemplifying targets. The higher the level of obligated tonnage, the lower the targets can be. When the Government went out to consultation in August the Government used an estimated level of obligated packaging for 2005 because the actual, total obligated tonnage in 2005 was not known at that time. The estimate used had been taken from the most recent draft of Valpak's PackFlow Project²³, as these were the most up-to-date figures. However, the Government has now obtained the actual reported data for 2005 and these can be found in table 3 below. The level of obligated tonnage each year in 2006-2010 is assumed to grow in line with the growth of the tonnage arising in the waste stream. Thus, the level of obligated tonnage for each material grows at the same rate as is shown in table 2 above.

Table 3: Estimated obligated tonnage 2005 to 2010 – EXCLUDING any additional tonnages (e.g. from leased and franchise packaging)

	2005	2006	2007	2008	2009	2010
Paper	3,453,457	3,487,992	3,522,871	3,558,100	3,593,681	3,629,618
Glass	2,049,214	2,088,149	2,127,824	2,168,253	2,208,365	2,248,116
Aluminium	133,833	135,171	136,523	137,888	139,267	140,660
Steel	629,901	626,751	623,618	620,500	617,397	614,310
Plastic	1,816,651	1,852,984	1,890,044	1,927,845	1,966,401	2,005,729
Wood	871,414	880,128	888,929	893,374	897,841	897,841
Other	21,075	21,075	21,075	21,075	21,075	21,075
Total	8,975,545	9,092,251	9,210,884	9,327,034	9,444,028	9,557,349

3.7 The Government's earlier consultation²⁴ put forward proposals which would result in a higher level of obligated tonnage, which could be expected to keep targets down. However, this RIA and the consultation it accompanied included target scenarios without any additional tonnages. Thus, Table 3 above does not include any additional tonnages that might be obligated as a result of the changes that are being made to obligate leased and franchise packaging.

3.8 The proposals put forward in the earlier consultation paper were intended to bring in the 'missing' 85% obligation on leased packaging; and to alter the way that packaging handled by franchises, tenanted pubs and other similar 'licensing' arrangements is obligated. Such changes could be expected to increase the obligated tonnage by the net amounts each year as illustrated in table 4 below. It should be noted that the figures contained in table 4 have been revised in light of responses received to the two consultations and meetings with the businesses likely to be affected by the changes. The tonnages of glass, wood and plastic packaging that the Government had expected to obligate have been reduced, the tonnages for steel and aluminium have been increased slightly and the paper tonnage has remained the same.

²³ PackFlow 2008, published July 2005, led by Valpak in partnership with Alupro, British Glass, Corus, Incpen, Recoup and WRAP, researched by David Davies Associates

²⁴ *Consultation Paper on Measures to Increase Obligated Tonnage*, Defra, Scottish Executive, Welsh Assembly Government, published 30 March 2005

Table 4: Additional net obligated tonnages expected to be added to the obligated figures from the proposals on leased and 'franchise' packaging

	2006	2007	2008	2009	2010
Paper	38,153	992	1,019	0	0
Glass	50,000	950	968	0	0
Aluminium	3,026	61	62	0	0
Steel	4,717	169	169	0	0
Plastic	71,305	10,210	10,594	0	0
Wood	73,675	10,038	9,767	0	0
Total	240,876	22,421	22,579	0	0

3.9 Adding in these additional obligated tonnages has the results shown in table 5 below.

Table 5: Estimated obligated tonnage 2006-2010 INCLUDING obligated tonnages from leased and 'franchise' packaging

	2006	2007	2008	2009	2010
Paper	3,526,526	3,562,793	3,599,450	3,635,445	3,671,799
Glass	2,139,099	2,180,710	2,223,130	2,264,258	2,305,014
Aluminium	138,228	139,671	141,131	142,542	143,968
Steel	631,445	628,456	625,482	622,355	619,243
Plastic	1,925,715	1,974,644	2,024,943	2,065,442	2,106,751
Wood	954,540	974,224	988,910	993,855	993,855
Other	21,075	21,075	21,075	21,075	21,075
Total	9,336,628	9,481,574	9,624,122	9,744,972	9,861,705

3.10 The figures in Table 5 are the obligated tonnages that the Government expects to underlie the targets in the period 2006-2010 and these are the figures used in this document to exemplify the business targets for this period.

iii. Recovery and recycling in 2004

3.11 Table 6 below shows the amount of recovery and recycling achieved in 2004. This table also shows the information that the Government has about amounts of carry-forward to 2005, surpluses and, in the case of glass, 'stockpiles' of glass collected, but has not yet arrived at a reprocessor. All of these need to be taken into account in informing the starting point for exemplifying targets.

Table 6: Recovery and recycling, UK 2004

UK Total 2004	Packaging Waste Rece'd at UK reprocessor	Packaging Waste exported for reprocessing	Surplus (rec'd but PRNs not issued)	Collected but not yet arrived at reprocessor	TOTAL RECOVERY/ RECYCLING 2004 ■	Carry Over PRN/ PERN issued for 2005
1	2	3	4	5	6	7
Paper	1,888,200 ^J	651,006	17,589 [#]		2,538,093	140,351
Glass	884,895	164,749	14,334	60,000 [*]	1,049,644	56,057
Aluminium	26,654	6,400	8		33,054	1,121
Steel	154,426	162,894	152		317,320	7,562
Plastic	170,370	173,947	2,298		344,317	7,821
Wood	796,956	426	27,065		797,382	46,822
Total Recycling	3,921,501	1,159,442	61,446		5,080,923	259,734
Clinical Incineration	4,763		922			36
Energy (EfW)	25,308		1,196			0
Energy (MSW)	526,336		176,392			6,402
Energy (RDF)	46,392		6,988			7,887
Total Recovery	602,799		185,498		602,799	14,325
TOTAL UK Recycling & Recovery 2004	4,524,300	1,159,442	246,944		5,683,722 ■	274,059

^J - includes 957 t composting

[#] includes 65 t composting

■ total made up of totals in columns 2 plus 3

* industry estimate

iv. Other considerations

3.12 A further factor in setting targets is the understanding there is about where a particular material is starting from. For some materials this will be the amount of recovery and recycling achieved in the previous year. For others, there will be a surplus tonnage held at reprocessors and, in some cases such as glass, an amount of material collected but not yet delivered to reprocessors (shown in column 5 of Table 6 above). Thus, in considering the starting point for each material, columns 4, 5 and 6 in Table 6 are relevant. Furthermore, the market is affected by the amount of material already collected and delivered for reprocessing that is shown in the column relating to carry forward (column 7 of Table 6). By way of illustration, in 2005 glass demand started from the following position –

Table 7 – Glass starting point for glass demand in 2005

Glass	Tonnes
Recovery & recycling in 2004	1,049,644
Surplus	14,334
Stockpiled in 2004	60,000
Carry forward to 2005	56,057
Total	1,180,035

3.13 Thus, the starting point for estimating the level of glass recovery and recycling in 2005 is not the figure for recovery and recycling (1.04 million tonnes), but is the total figure above – 1.180 million tonnes. Some consultation responses provided thoughts on what the starting point for materials should be and a limited number even provided their own estimates, all of which will be taken into account as far as possible when setting targets.

Options for the UK business targets

3.14 Taking into account the data above, including the 'starting point' information, targets were exemplified for 2006-2010. A number of different target scenarios were discussed in the consultation document for illustrative purposes. It should be noted that all scenarios were based on the latest figures for packaging arising in the UK waste stream. The target scenarios included in the consultation paper on meeting Directive targets were as follows –

- Option 1 excluded additional leased and franchise obligated tonnages, used latest figures for packaging arising in the UK waste stream and used the targets that were published in November 2003 (this was the **business as usual** scenario);
- Option 2 included additional leased and franchise obligated tonnages, used latest figures for packaging arising in the UK waste stream and used the targets as published in November 2003;
- Option 3 included leased and franchise additional obligated tonnages, set targets in roughly equal annual increments in tonnage terms, reflecting the approach that was recommended to the Government by the Advisory Committee on Packaging (when the targets up to 2008, were first set in November 2003) and used the latest figures for packaging arising in UK waste stream; (this option was the Government's preferred target scenario in the consultation paper);
- Option 4 used the same data as option 3, but front-loaded the targets, which means that industry would be required to do a little more in 2006 and 2007 than would be required in scenario 3. The overall recovery target and material specific targets were all front loaded to varying degrees;
- Option 5 used the same data as option 3, but back-loaded the targets, which means that industry would be required to put in more effort in later years i.e. 2007 and in particular 2008;
- Option 6 used the same data as option 3, but only set targets (rounded up to the nearest 0.5%) which aim to just meet the Directive targets i.e. lack the level of cushion built into the existing targets and also the targets in option 3, 4 and 5.

3.15 Option 1 was the '*business as usual*' scenario, that is, the targets as they were published in November 2003 and obligated tonnage without any additional tonnages

(e.g. from leased and franchise arrangements). This scenario was only for the purposes of illustration and was not a targets option for 2006-2010 targets. Although some materials under this scenario would continue to meet Directive targets (e.g. paper, metals), others such as glass and plastic would fail to meet the Directive targets as a result of the adjustments made to the amount of these materials entering the waste stream.

3.16 Option 2 also used existing targets (i.e. as published in November 2003), but included the additional obligated tonnages from the leased and 'franchise' provisions. This scenario would bring paper, wood and metals above the Directive targets, to a level which is not necessary, but plastic and glass would fail to meet Directive targets – plastic would achieve 22% rather than the required 22.5% and glass would achieve 57.2% rather than the required 60%. Overall recovery and recycling targets would be exceeded by quite a large amount. This scenario was also only included for the purposes of illustration.

3.17 Option 3 included the additional tonnages of leased and franchise packaging in the obligated figures and set targets in roughly equal annual increments in tonnage terms, which reflects the approach recommended to the Government by the Advisory Committee on Packaging. Scenario 3 would allow all targets to be met. Although paper and wood can be met comfortably, which is always going to be the case given their present level, other materials meet targets, but fairly closely e.g. glass and metals. This scenario was the one that the Government considered most likely to meet Directive targets in a cost-effective way and in line with the ACP's advice (equal increases year on year) and this option was put forward as the Government's preferred target scenario. It was noted however, that the actual target figures may have to be adjusted later in the year to take account of more up to date data following the consultation e.g. second quarter reprocessing figures and data on obligated tonnage (although this would be the case for which ever target scenario stakeholders preferred). The target figures in this scenario 3 were therefore expected to be broadly those that would be set for 2006-2010.

3.18 Option 4 used the same data as option 3, but front-loaded the targets. 'Front loading' means raising the targets by a greater amount in the early years and lesser amounts in later years. As we were only looking to front load the targets from 2006 – 2008 the degree to which the targets have been front loaded for some materials is fairly small. However, the front loading becomes more apparent if the tonnage rises are considered rather than simply looking at the business targets.

3.19 Option 5 used the same data as option 3, but back-loaded the targets. 'Back loading' means that targets are only raised by small amounts initially and the jumps in targets become greater towards the Directive year. In the same way as option 4 we were only looking to back load targets from 2006 – 2008, therefore the degree to which the targets could be back loaded for some materials was fairly small.

3.20 Option 6 used the same data as option 3, but set targets (rounded up to the nearest 0.5%) which looked to simply meet the Directive targets by a small margin. This was the case for all the targets in this scenario, except paper and wood. Paper and wood already exceed the Directive targets by a significant margin. Last year (in 2004), 68.1% and 56.8% of paper and wood packaging respectively was recycled

(against 2008 Directive targets of 60% and 15%, respectively). In light of previous advice from the paper and wood material organisations, we simply increased the targets by 0.5% each year. The Government believed that it would not be appropriate to reduce the targets year on year to try to get back down to the Directive target levels or the alternative of keeping the targets flat in 2006,2007 and 2008.

3.21 The Government had noted the Advisory Committee's advice that targets should be set to achieve roughly equal annual increases in tonnage terms, but the various scenarios were included to show what impact different approaches would have on targets and the associated costs to industry of the different options.

Action based on consultation responses

3.22 A further target scenario "option 7" has been created in light of responses received to the consultation paper, discussions with interested parties and the most up to date data available to the Government e.g. third quarter reprocessor data. The consultation paper asked stakeholders to consider the targets shown in scenarios 3, 4, 5 and 6 above and to confirm that targets should be set to rise in roughly equal amounts (tonnes) each year, rather than front-loading or back-loading the targets. The Government received 52 responses to this question, of which 88% favoured equal increases year on year and only 12% suggested that the targets should be front or back-loaded. 20 of the 52 responses preferred scenario 3 (which included the majority of compliance schemes and trade associations), 7 responses preferred scenario 6 (including a large compliance scheme) and the remainder did not state which scenario they preferred.

3.23 This option therefore includes the additional tonnages of leased and franchise packaging in the obligated figures, although the additional tonnages from leased and franchised packaging have been revised following discussions with key stakeholders (see Table 4). The Government has also set the targets in roughly equal annual increments in tonnage terms, which not only reflects the approach recommended to the Government by the Advisory Committee on Packaging, but also the majority of consultation responses. The Government has also built a small cushion into the 2008 targets as industry indicated in their responses.

3.24 The target scenarios corresponding to options 1 – 7 are as follows –

Table 8: Option 1 - business as usual - excludes additional leased and franchise obligated tonnages, uses latest figures for packaging arising in the UK waste stream and uses the targets as published in November 2003

	2004	2005+	2006	2007	2008	2008 EU Target	2009	2010
Paper target	65	66	68	69	70		70	70
Achieves			62.7	63.7	64.6	60	64.6	64.6
Tonnes	2,538,093	2,269,264	2,361,409	2,420,097	2,479,723	2,303,126	2,504,520	2,529,566
Increase (t)			+92,145 ²⁵	+58,688	+59,626		+24,797	+25,046
Glass target	49	55	61	66	71		71	71
Achieves			47.4	51.2	55	60	55.1	55.1
Tonnes	1,048,531	1,087,605	1,230,377	1,356,521	1,487,015	1,620,000	1,514,524	1,541,786
Increase (t)			+142,772	+126,144	+130,494		+27,509	+27,262
Steel target	52.5	55	58	60	61.5	50 metals	61.5	61.5
Achieves			53.6	55.5	56.8		56.8	56.8
Tonnes	317,320	348,675	365,855	376,579	384,063		382,143	380,232
Increase (t)			+17,180	+10,724	+7,484		-1,920	-1,911
Aluminium target	26	28	30.5	33	35.5		35.5	35.5
Achieves			28.8	31.1	33.5		33.5	33.4
Tonnes	33,055	37,385 ²⁶	41,130	44,946	48,835		49,323	49,784
Increase (t)			+3,745	+3,816	+3,889		+488	+461
Metals					432,898	410,777		
Plastic target	21.5	22	22.5	23	23.5		23.5	23.5
Achieves			19.6	19.9	20.4	22.5	20.4	20.3
Tonnes	344,243	390,348	407,203	424,577	442,484	489,101	451,333	460,360
Increase (t)			+16,855	+17,374	+17,907		+8,849	+9,027
Wood target	18	19	20	20.5	21		21	21
Achieves			14.5 ²⁷	14.8	15.2	15	15.2	15.2
Tonnes	797,382	160,635	170,780	176,800	182,018	179,664	182,928	182,928
Increase (t)			+10,145	+6,020	+5,218		+910	-
Recovery	63	65	67	69	70		70	70
Achieves			57.2	58.8	59.7	60	59.7	59.6
Tonnes	5,681,423	5,736,280	5,990,525	6,249,373	6,419,452	6,452,783	6,499,543	6,577,087
Increase (t)			+254,245	258,848	170,079		+80,091	+77,544
Recycling	5,078,624	5,392,103	5,631,094 ²⁸	5,874,411	6,034,285	55	6,109,570	6,182,462
Increase			+238,991	+243,317	+159,874	5,742,650	+75,285	+72,892
Min recycling	94%	94%	94%	95%	95%		95%	95%
Total in waste stream	10,230,001	10,280,196	10,471,264	10,620,003	10,754,638		10,890,566	11,021,793

+ figures for anticipated tonnage in 2005 are taken from Valpak's PackFlow report

²⁵ tonnage from target only – i.e. excludes paper recycled to meet general recycling obligations

²⁶ first quarter aluminium figures under investigation

²⁷ figures for wood achievements represent result from targets only – i.e. excludes wood recycled to meet general recycling

Table 9: Option 2 - includes additional leased and franchise obligated tonnages targets as published in November 2003, uses latest figures for packaging arising in UK waste stream and uses the targets as published in November 2003

	2004	2005+	2006	2007	2008	2008 EU Target	2009	2010
Paper target	65	66	68	69	70		70	70
Achieves			63.4	64.4	65.3	60	65.3	65.3
Tonnes	2,538,093	2,269,264	2,387,508	2,447,541	2,508,550	2,303,126	2,533,635	2,558,972
Increase (t)			+118,244*	+60,033*	+61,009*		+25,085	25,337
Glass target	49	55	61	66	71		71	71
Achieves			49.1	53.2	57.2	60	57.2	57.2
Tonnes	1,048,531	1,087,605	1,276,412	1,408,621	1,545,573	1,620,000	1,574,166	1,602,501
Increase (t)			+188,807	+132,209	+136,952		+28,593	+28,335
Steel target	52.5	55	58	60	61.5		61.5	61.5
Achieves			53.9	55.7	57.1	50 metals	57.1	57.1
Tonnes	317,320	348,675	367,587	378,361	385,881		383,951	382,032
Increase (t)			+18,912	+10,774	+7,520		-1,930	-1,919
Aluminium target	26	28	30.5	33	35.5		35.5	35.5
Achieves			29.4	31.8	34.2		34.2	34.2
Tonnes	33,055	37385 ²⁹	42,054	45,956	49,932		50,431	50,936
Increase (t)			+4,669	+3,902	+3,976		+499	+505
Metals					435,813	410,777		
Plastic target	21.5	22	22.5	23	23.5		23.5	23.5
Achieves			21	21.4	22.0	22.5	22.0	22.0
Tonnes	344,243	390,348	436,579	457,318	479,002	489,101	488,582	498,354
Increase (t)			+46,231	+20,739	+21,684		+9,580	+9,772
Wood target	18	19	20	20.5	21		21	21
Achieves			16.2	16.8	17.4	15	17.4	17.4
Tonnes	797,382	160,635	191,586*	200,617*	208,437*	179,664	209,479	209,479
Increase (t)			+30,951	+9,031	+7,820		+1,042	-
Recovery	63	65	67	69	70		70	70
Achieves			59.5	61.3	62.3	60	62.3	62.3
Tonnes	5,681,423	5,736,280	6,228,008	6,513,833	6,707,087	6,452,783	6,791,161	6,872,352
Increase (t)			+491,728	+285,825	+193,254		+84,074	+81,191
Recycling	5,078,624	5,392,103	5,854,328♣	6,188,141	6,371,733	55	6,451,603	6,528,734
Increase			+462,225	+333,813	+183,592	5,742,650	+79,870	+77,131
Min recycling	94%	94%	94%	95%	95%		95%	95%
Total in waste stream	10,230,001	10,280,196	10,471,264	10,620,003	10,754,638		10,890,566	11,021,793

* represents tonnage from target only, excludes general recycling

+ figures for anticipated tonnage in 2005 are taken from Valpak's PackFlow report

²⁹ first quarter aluminium figures under investigation

Table 10: Option 3 - includes leased and franchise additional obligated tonnages, equal increases year on year and uses latest figures for packaging arising in UK waste stream and sets targets to meet Directive targets

	2004	2005+	2006	2007	2008	EU Target 2008	2009	2010
Paper target	65	66	66.5	67	67.5		68	68.5
Achieves			62	62.5	63	60	63.5	64
Tonnes	2,538,093	2,269,264	2,334,842	2,376,598	2,418,959		2,461,246	2,504,137
Increase (t)			+65,578●	+41,756	+42,361		+42,287	+42,891
Glass target	49	55	65	71	75.5		76.5	77.5
Achieves			52.3	57.1	60.8	60	61.6	62.4
Tonnes	1,048,531	1,087,605	1,360,111	1,515,335	1,643,532		1,696,108	1,749,209
Increase (t)			+272,506	+155,224	+128197		+52,576	+53,101
Steel target	52.5	55	56	57.5	58.5		59.5	60.5
Achieves			52	53.4	54.3	50 metal	55.2	56.1
Tonnes	317,320	348,675	354,911	362,596	367,057		371,465	375,820
Increase (t)			+24,133	+7,685	+4,461		4,408	4,355
Aluminium target	26	28	29.5	30.5	31.5		32.5	33.5
Achieves			28.4	29.4	30.4		31.4	31.8
Tonnes	33,055	37,385	40,675	42,475	44,306		46,170	47,349
Increase (t)			+3,290	1,800	1,831		1,864	1,179
Metals					411,669	410,777		
Plastic target	21.5	22	23	24	25		25.5	26
Achieves			21.4	22.4	23.4	22.5	23.9	24.3
Tonnes	344,243	390,348^	446,281	477,202	509,577		530,164	551,370
Increase (t)			+55,933	+30,921	+32,375		+20,587	+21,206
Wood target	18	19	19	20	21		22	23
Achieves			15.4	16.4	17.4	15	18.2	19.1
Tonnes	797,382	160,635*	182,007	195,724	208,437		219,455	229,430
Increase (t)			+21,372	+13,717	+12,713		11,018	9,975
Recovery	63	65	66	67	68.5		69.5	70
Achieves			58.6	59.5	61	60 ♪	61.9	62.3
Tonnes	5,681,423	5,736,280	6,135,053	6,325,026	6,563,364	6,452,783	6,742,653	6,872,352
Increase (t)			+398,773●	189,973	238,338		179,289	129,699
Recycling	5,078,624	5,392,103	5,705,599	5,882,274	6,103,929	55 ♪	6,270,667	6,391,287
Increase			+313,496	+176,675	+221,655	5,915,051	+166,738	+120,620
Min recycling	94%	94%	93%	93%	93%		93%	93%
Total in waste stream	10,230,001	10,280,196	10,471,264	10,620,003	10,754,638		10,890,566	11,021,793

♪ the targets to be achieved by 31 December 2008 have to be maintained at least at that level thereafter

* achieved through material-specific target only, excludes general recycling

+ figures for anticipated tonnage in 2005 are taken from Valpak's PackFlow report

● level of increase likely to be lower as total achievement in 2005 likely to be higher than figure show

Table 11: Option 4 - includes leased and franchise additional obligated tonnages, uses latest figures for packaging arising in UK waste stream and sets targets to meet Directive targets, but with front loaded rises

	2004	2005+	2006	2007	2008	EU Target 2008	2009	2010
Paper target	65	66	67	67.5	68		68.5	69
Achieves			62.5	63	63.5	60	64	64.4
Tonnes	2,538,093	2,269,264	2,352,397*	2,394,334	2,436,877		2,479,343	2,522,415
Increase (t)			+83,133●	+41,937	+42,543		+42,466	43,072
Glass target	49	55	66	72	75.5		76.5	77.5
Achieves			53.1	58	60.9	60	61.7	62.5
Tonnes	1,048,531	1,087,605	1,381,036	1,536,677	1,643,532		1,696,108	1,749,209
Increase (t)			+293,431	+155,641	+106,855		+52,576	+53,101
Steel target	52.5	55	57.5	58	58.5		59.5	60
Achieves			53.4	53.9	54.3	Metals 50	55.2	55.7
Tonnes	317,320	348,675	364,418	365,749	367,057		371,465	372,714
Increase (t)			+15,743	+1,331	+1,308		+4,408	+1,249
Aluminium target	26	28	31	31.5	31.5		32	32.5
Achieves			29.9	30.4	30.4		30.8	31.4
Tonnes	33,055	37,385	42,743	43,867	44,306		45,459	46,631
Increase (t)			+5,358	+1,124	+439		+1,153	+1,172
Metals					411,363	410,777		
Plastic target	21.5	22	24	24.5	25		25.5	26
Achieves			22.4	22.8	23.4	22.5	23.9	24.4
Tonnes	344,243	390348^	465,685	487,143	509,577		530,164	551,370
Increase (t)			+75,337	+21,458	+22,434		+20,587	21,206
Wood target	18	19	21	22	22.5		23	23.5
Achieves			17	18	18.7	15	19	19.4
Tonnes	797,382	160,635	201,165*	215,296	223,326		229,430	234,417
Increase (t)			+40,530	+14,131	+8,030		+6,104	+4,987
Recovery	63	65	67	67.5	68.5		69.5	70
Achieves			59.5	60.0	61	60	61.9	62.3
Tonnes	5,681,423	5,736,280	6,228,008	6,372,227	6,563,364	6,452,783	6,742,653	6,872,352
Increase (t)			+491,728	+144,219	+191,137		+179,289	+129,699
Recycling	5,078,624	5,392,103	5,792,047	5,926,171	6,103,929	55	6,270,667	6,391,287
Increase			+399,944	+134,124	+177,758	5,915,051	+166,738	+120,620
Min recycling			93%	93%	93%		93%	93%
Total in waste stream	94%	94%	10,471,264	10,620,003	10,754,638		10,890,566	11,021,793

* result from material-specific target only, no general recycling included

● level of increase likely to be lower as total achievement in 2005 likely to be higher than figure shown

+ figures for anticipated tonnage in 2005 are taken from Valpak's PackFlow report

Table 12: Option 5 - includes leased and franchise additional obligated tonnages, uses latest figures for packaging arising in UK waste stream and targets are back-loaded

	2004	2005+	2006	2007	2008	EU Target 2008	2009	2010
Paper target	65	66	66.5	67	68		68.5	69
Achieves			62	62.5	63.5	60	64	64.4
Tonnes	2,538,093	2,269,264	2,334,842	2,376,598	2,436,877		2,479,343	2,522,415
Increase (t)			+65,578●	+41,756	+60,279		+42,466	+43,072
Glass target	49	55	60	67	75.5		76.5	77.5
Achieves			48.2	53.9	60.8	60	61.6	62.4
Tonnes	1,048,531	1,087,605	1,255,487	1,429,964	1,643,532		1,696,108	1,749,209
Increase (t)			+167,882	+174,477	+213,568		+52,576	+53,101
Steel target	52.5	55	55.5	56.5	58		59.5	60
Achieves			51.5	52.4	53.8	50 metal	55.2	55.7
Tonnes	317,320	348,675	351,742	356,290	363,920		371,465	372,714
Increase (t)			+3,067	+4,548	+7,630		7,545	1,249
Alu/m target	26	28	29	30	32		32.5	33
Achieves			27.9	28.9	30.8		31.3	31.8
Tonnes	33,055	37,385	39,986	41,778	45,009		46,170	47,347
Increase (t)			+2,601	+1,792	+3,231		1,161	1,177
Metals					412,516	410,777		
Plastic target	21.5	22	22.5	23	25		25.5	26
Achieves			20.9	21.4	23.4	22.5	23.9	24.3
Tonnes	344,243	390,348	436,579	457,318	509,577		530,164	551,370
Increase (t)			+46,231	+20,739	+52,259		+20,587	+21,206
Wood target	18	19	19.5	20	21		21.5	22
Achieves			15.8	16.4	17.4	15	17.8	18.2
Tonnes	797,382	160,635*	186,796*	195,724	208,437		214,467	219,455
Increase (t)				+8,929	+12,713		6,030	4,988
Recovery	63	65	66	67	68.5		69.5	70
Achieves			58.6	59.5	61	60	61.9	62.3
Tonnes	5,681,423	5,736,280	6,135,053	6,325,026	6,563,364	6,452,783	6,742,653	6,872,352
Increase (t)			398,773●	189,973	238,338		179,289	129,699
Recycling	5,078,624	5,435,056	5,705,599	5,882,274	6,103,929	55	6,270,667	6,391,287
Increase			+270,543	+176,675	+221,655	5,915,051	+166,738	+120,620
Min recycling	94%	94%	93%	93%	93%		93%	93%
Total in waste stream	10,230,001	10,280,196	10,471,264	10,620,003	10,754,638		10,890,566	11,021,793

♪ the targets to be achieved by 31 December 2008 have to be maintained at least at that level thereafter

● increase likely to be smaller as achievement in 2005 likely to be higher

* result from material-specific target only, no general recycling included

+ figures for anticipated tonnages in 2005 are taken from Valpak's PackFlow report

Table 13: Option 6 - includes leased and franchise additional obligated tonnages, uses latest figures for packaging arising in UK waste stream and sets targets to just meet Directive targets

	2004	2005+	2006	2007	2008	EU Target 2008	2009	2010
Paper target	65	66	66.5	67	67.5		67.5	67.5
Achieves			62	62.5	63	60	63	63
Tonnes	2,538,093	2,269,264	2,334,842	2,376,598	2,418,959		2,443,148	2,467,580
Increase (t)			+65,578●	+41,756	+42,361		+24,189	+24,432
Glass target	49	55	65	70	75		75	75
Achieves			52.3	56.4	60.5	60	60.5	60.5
Tonnes	1,048,531	1,087,605	1,360,111	1,493,992	1,632,647		1,662,851	1,692,783
Increase (t)			+272,506	+133,881	+138,655		+30,204	+29,932
Steel target	52.5	55	56	57.5	58.5		58.5	59
Achieves			52	53.4	54.3		54.3	54.8
Tonnes	317,320	348,675	354,911	362,596	367,057		365,222	366,502
Increase (t)			+6,236	+7,685	+4,461		-1,835	+1,280
Alu/m target	26	28	29.5	30.5	31.5		31.5	32
Achieves			28.5	29.4	30.4	50 metal	30.4	30.9
Tonnes	33,055	37,385	40,675	42,475	44,306		44,749	45,914
Increase (t)			+3,290	+1,800	+1,831		+443	+1,165
Metals					411,363	410,777		
Plastic target	21.5	22	23	24	24.5		24.5	24.5
Achieves			21.5	22.4	22.9	22.5	22.9	22.9
Tonnes	344,243	390,348	446,281	477,202	499,385		509,373	519,560
Increase (t)			+55,933	+30,921	+22,183		+9,988	+10,187
Wood target	18	19	19.5	20	20.5		20.5	20.5
Achieves			15.8	16.4	16.9	15	16.9	16.9
Tonnes	797,382	160,635*	186,796*	195,724	203,474		204,492	204,492
Increase (t)			+26,161	+8,928	+7,750		+1,018	+0
Recovery	63	65	66	67	68		68	68
Achieves			58.6	59.5	60.5	60 ♪	60.5	60.5
Tonnes	5,681,423	5,736,280	6,135,053	6,325,026	6,515,456	6,452,783	6,597,128	6,675,999
Increase (t)			+398,773●	+189,973	+190,430		+81,672	+78,871
Recycling	5,078,624	5,435,056	5,644,249	5,819,024	5,994,220	55 ♪	6,069,358	6,141,919
Increase			+209,193	+174,775	+175,196	5,915,051	+75,138	+72,561
Min recycling	94%	94%	92%	92%	92%		92%	92%
Total in waste stream	10,230,001	10,280,196	10,471,264	10,620,003	10,754,638		10,890,566	11,021,793

♪ the targets to be achieved by 31 December 2008 have to be maintained at least at that level thereafter

● increase likely to be smaller as achievement in 2005 likely to be higher

* result from material-specific target only, no general recycling included

+ figures for anticipated tonnage in 2005 are taken from Valpak's PackFlow report

Table 14: Option 7 – “Post Consultation Option” - includes leased and franchise additional obligated tonnages, uses latest figures for packaging arising in UK waste stream and sets targets in roughly equal increments

	2004	2005+	2006	2007	2008	EU Target 2008	2009	2010
Paper target	65	66	66.5	67	67.5		68	68.5
Achieves			62	62.7	63	60	63.7	64
Tonnes	2,538,093	2,685,784	2,345,140	2,387,071	2,429,629		2,472,103	2,515,182
Increase (t)	109,500			+41,931	+42,558		+42,474	+43,079
Glass target	49	55	65	69.5	73.5		74	74.5
Achieves			53.5	57	60.5	60	61	61.3
Tonnes	1,048,531	1,259,568	1,390,414	1,515,593	1,634,001		1,675,551	1,717,235
Increase (t)	186,583		+130,846	+125,179	+118,408		+41,550	+41,684
Steel target	52.5	55	56	57.5	58.5		59	59.5
Achieves			52	53.2	54	50 metal	54.6	55
Tonnes	317,320	337,884	353,609	361,362	365,907		367,189	368,450
Increase (t)	12,800		+15,725	+7,753	+4,545		+1,282	+1,261
Alu/m target	26	28	29	31	32.5		33	33.5
Achieves			28	30	31.5		32	32.4
Tonnes	33,055	37,316	40,086	43,298	45,868		47,039	48,225
Increase (t)	1,224		+2,770	+3,212	+2,570		+1,171	+1,190
Metals					411,775	410,777		
Plastic target	21.5	22	23	24	24.5		25	25.5
Achieves			21	22	22.9	22.5	23.4	23.8
Tonnes	344,243	408,288	442,914	473,915	496,111		516,361	537,222
Increase (t)	23,038		+34,626	+31,001	+22,196		+20,250	+20,861
Wood target	18	19	19.5	20	20.5		21	21.5
Achieves			15.7	16.3	17	15	17.3	17.7
Tonnes	797,382	753,087	186,135*	194,845*	202,727*		208,710	213,679
Increase (t)	40,540			+8,710	+7,882		+5,983	+4,969
Recovery	63	65	66	67	68		69	70
Achieves			58.8	59.8	60.9	60J	61.8	62.7
Tonnes	5,681,423	6,025,028J	6,162,174	6,352,654	6,544,402	6,446,848	6,724,031	6,903,194
Increase (t)	377,104		+137,146	+190,480	+191,748		+179,629	+179,163
Recycling	5,078,624	5,481,927	5,669,200	5,844,442	6,020,850	55J	6,186,109	6,350,938
Increase			+187,273	+175,242	+176,408	5,909,611	+165,259	+164,829
Min recycling	94%	94%	92%	92%	92%		92%	92%
Total in waste stream	10,230,001	10,280,196	10,471,264	10,610,306	10,744,747		10,880,477	11,011,502

J the targets to be achieved by 31 December 2008 have to be maintained at least at that level thereafter

● increase unclear. As wood and paper are used for general recovery, 2005 achievement reflects this and amount delivered by the material specific target

* result from material-specific target only, no general recycling included

+ 1st, 2nd and 3rd quarter reprocessor data extrapolated forward for whole of 2005

CHANGES TO THE SCHEME APPROVAL REGIME

2 options were put forward in the consultation document.

Option 1: 'business as usual'

3.25 Business as usual would mean no change to the current Regulations.

Option 2: changing the approval process

3.26 Under this option, compliance schemes would be required to apply for approval annually from the Secretary of State and provide their operational plans to Defra as part of this re-application process. Schemes would then either be granted approval, have approval removed or be given 'conditional approval' based on a certain set of criteria as described in chapter 2.

3.27 Option 2 was the Government's preferred approach, since it believed that changing the approval process (as described above) would be beneficial to the UK as a whole in meeting the 2008 Directive targets.

Action based on consultation responses

3.28 The Government asked stakeholders to consider whether or not they agreed with its proposal to require compliance schemes to re-apply for approval from the Secretary of State or Scottish Minister each year. The Government received 46 responses to this question, of which only 46% agreed (which included, for example, responses from 2 large reproprocessors, 3 material organisations and 9 trade associations) and 54% were against (including all compliance schemes). In light of consultation responses and discussions with interested parties the Government will not be taking forward the proposal to require schemes to seek approval each year.

3.29 Stakeholders were also asked to consider the Government's proposal to introduce "conditional approval" for compliance schemes. 45 responses were received and 80% were in favour of the introduction of conditional approval, only 20% were not. Therefore, the Government will be including provisions in the Regulations to enable the Secretary of State to grant conditional approval to a compliance scheme. If a scheme is granted conditional by the Secretary of State because it had, for example, failed to discharge its targets in the previous year, it would be the subject of additional Agency monitoring. The consultation document proposed a fee structure of £110 per scheme member to cover the additional monitoring costs that would be incurred by the Agencies. Stakeholders were asked for their views on this level of fee. The Government received 42 responses of which 52% did not agree with the proposed level of fee, and 48% did. However, of the 20 responses (48%) that did agree, 11 commented that the fee was perhaps a little high. The Government and the Agency have taken on board the comments received and have reduced the fee from a flat £110 per scheme member to the following fee structure based on scheme obligations –

- up to 24,999 tonnes recovery obligation - £1,540;
- from 25,000 tonnes up to 249,999 tonnes recovery obligation - £2,310;

- over 250,000 tonnes recovery obligation - £3,080.

3.30 The revised fee is now more reflective of the costs that will be incurred by the Agencies.

SCRUTINY OF SCHEMES' AND LARGE PRODUCERS' OPERATIONAL PLANS

3.31 2 options were put forward in the consultation document.

Option 1: 'business as usual'

3.32 Business as usual would mean no change to the current Regulations.

Option 2: scheme and large producer business plans to be submitted to Defra

3.33 Under this option, schemes and large producers (handling more than 500 tonnes of packaging) would be required to send their operational plans to Defra or the Scottish Executive, in addition to the relevant Agency to ensure that sufficient focus is given to the 2008 Directive targets.

3.34 Option 2 was the Government's preferred course of action. It considered that additional scrutiny of the plans by Defra would help to ensure that steps are being taken by large producers and schemes to meet the Directive targets in 2008.

Action based on consultation responses

3.35 The Government asked industry to consider whether or not schemes and large producers should be required submit their operational plans to not only the relevant Agency as at present, but also to Defra/ the Scottish Executive. The Government received 42 responses to this question and 76% of these agreed that the operational plans should be submitted to Defra. The Regulations will be amended in line with the Government's proposed course of action (option 2).

4. BENEFITS

Summary

4.1 This chapter considers the benefits of the options put forward in the consultation document and chapter 3 of this RIA and, in particular, the changes the Government will be making to the Regulations following consultation.

4.2 The “**benefits**” of each option are considered in terms of the following -

- economic;
- environmental; and
- social.

4.3 The benefits of the options (and changes) are as follows –

- targets options – option 7, which is the target scenario being taken forward into the packaging Regulations (as a result of consultation) has some of the highest benefits associated with it (other than option 2 in 2007 and 2008);
- scheme approval regime – two options were put forward. Option 1 “business as usual” has no additional benefits associated with it. Option 2 suggested the introduction of “conditional approval” and responses to the consultation were in favour of taking it forward. Conditional approval will allow some schemes which narrowly fail to discharge their members obligations to continue operating (which at present may be de-registered) for one more year. A scheme granted conditional approval will therefore be able to continue to contribute towards the meeting Directive targets;
- scrutiny of scheme and large producer operational plans - two options were put forward. Option 1 “business as usual” has no additional benefits associated with it. Option 2 has industry support and its introduction will help to ensure that compliance schemes and large producers are mindful of the Directive targets and are taking the necessary steps now to ensure that the UK will meet the 2008 targets and does so at least cost to industry.

BUSINESS RECOVERY AND RECYCLING TARGET SCENARIOS

4.4 The target scenarios are considered in terms of the following three criteria and are compared with the 'business as usual' option i.e. option 1:

Economic

- the avoided disamenity impact of landfill;
- the avoided financial costs of landfill (excluding landfill tax).

Environmental

- the avoided damage cost related to climate change effect, that is, the consequences of the net reduction in CO₂ and CO₂ equivalent emissions through recycling instead of using virgin raw materials (including the avoided impact of methane emission from landfill).

Social

- The Government was unable to identify any social benefits, although packaging targets could act as a driver for the collection of other waste streams.

4.5 The benefits of increased packaging waste recycling flow principally from the changes in processes from production of packaging from virgin materials and its subsequent landfilling on the one hand, to the increased production of packaging made from recycled materials, and other uses of recyclate and the consequent reduction in landfill on the other. No assessment has been made of the benefits of incineration with energy recovery because the evidence base for a comparison with landfill is not sufficient. No assessment has been made of the CO₂ benefits of increased wood recycling as the LCA model used does not have coefficients for wood recycling.

Economic

Avoided financial cost of reduction in landfill

4.6 It is assumed that all tonnages of packaging waste going to additional recycling and incineration with energy recovery lead to an equivalent reduction in landfill. This will lead to a reduction in the direct financial costs of landfilling packaging waste. The avoided financial cost of landfill is assumed to be in the range £21 - £86 (central cost £38) per tonne for commercial waste and in the range £27 - £77 (central cost £46) per tonne for municipal waste. The total avoided financial cost for each scenario is weighted according to the proportion of packaging arisings that are predicted to be from the respective waste streams.

4.7 These figures exclude the cost of landfill tax from the direct financial costs avoided. The Landfill Tax was initially set at £7 per tonne to reflect the external cost of disamenity and climate change effects, but was increased to £10 per tonne in 1999 and put on an annual escalator of £1 per tonne. Since then, the government has decided to increase the current landfill tax escalator to £3 per tonne per annum from 2005-6 and at least this in additional years to £35 per tonne. As we have made

allowance for the change in the external cost of landfill in our earlier calculations and the escalator portion of the tax is assumed to be a transfer, landfill tax is not included in the avoided cost (although of course it has distributional impacts, as it falls on Local Authorities and businesses).

4.8 Applying estimates for the avoided financial cost of landfill to the total volumes of landfill gives a range of avoided costs of between £2.146m and £24.932m depending on the gate fee, year and scenario chosen (see Table 15).

Table 15: Avoided financial cost of landfill (incremental to Option 1 BAU)						
Range = £21 - £86 with central £38 for commercial		2006	2007	2008	2009	2010
Range = £27 - £77 with central £46 for municipal						
Avoided costs weighted by source of arisings.		£m	£m	£m	£m	£m
Option 2	Low	5.793	6.450	7.018	7.154	7.235
	Central	10.290	11.443	12.451	12.672	12.816
	High	17.299	19.234	20.929	21.298	21.538
Option 3	Low	3.668	2.146	3.736	6.059	8.380
	Central	6.524	3.811	6.632	10.726	14.836
	High	10.969	6.407	11.148	18.025	24.932
Option 4	Low	4.041	3.211	3.731	6.059	7.260
	Central	7.311	5.704	6.626	10.726	12.849
	High	12.314	9.590	11.139	18.025	21.593
Option 5	Low	3.693	2.156	3.742	6.060	7.254
	Central	6.558	3.824	6.640	10.727	12.842
	High	11.024	6.427	11.162	18.028	21.581
Option 6	Low	3.687	2.151	2.660	2.722	2.748
	Central	6.549	3.818	4.717	4.816	4.863
	High	11.010	6.417	7.928	8.093	8.172
Option 7	Low	3.875	2.343	2.835	5.103	7.421
	Central	6.883	4.156	5.030	9.039	13.145
	High	11.571	6.986	8.455	15.191	22.092

Reduction in disamenity from landfill

4.9 The disamenity effect of landfill is generally assumed to be about £2 per tonne of landfill and indeed this is the notional figure used in the external cost of landfill originally used to set the landfill tax in 1996. This figure has been confirmed as a reasonable estimate by a Defra study which examined price reductions of houses in the proximity of landfill sites.³⁰ The study did not investigate the causal effects of the house price reduction, but the disamenity is generally assumed to derive from the odour, dust, traffic noise and visual intrusion. The nominal measure of fixed disamenity cost is found to be between £1.52 and £2.18 per tonne and for the purpose of the calculations, and to be consistent with the previously assumed external cost, a figure of £2 has been used. The results are subsumed into the total benefits in Table 17.

³⁰ A study to estimate the disamenity costs of landfill in Great Britain (2002). Cambridge Econometrics in association with EFTEC and WRc. www.defra.gov.uk

Environmental

CO2 reduction

4.10 The change in processes caused by increases in packaging recycling to the target levels will lead to a reduction in carbon emissions. These have been calculated by using a LCA software package, SimaPro 5.1 which allows for the simulation of material recycling scenarios. This is based on a database which uses an inventory of packaging materials for the Swiss Packaging Institute. The inventory includes emissions from raw material production, energy production, production of semi-manufactures and auxiliary markets, transportation and the production process of the materials. The LCA model calculates reduction in CO₂ and CO₂ equivalent emissions such as the change in methane emissions from landfill. The model also calculates other emission impacts such as acidification, eutrophication and ozone layer depletion, but the significance of these in the recycling process is minor in comparison to carbon emissions and will not be valued.

4.11 The reduction in carbon emissions because of an increase in packaging recycling will lead to a reduction in the damage cost of climate change. A Government Economic Service working paper recommends a range of £35 to £140 per tonne of carbon as an illustrative damage cost of carbon emissions.³¹ The LCA model produces values for the change in CO₂ and CO₂ equivalent emissions and the range given above translates into a CO₂ damage costs of £45 – 164 (central cost of £85) per tonne at 2005 prices and these are used to value the change in CO₂ damage (see Table 16). These figures cover impacts such as effects on agriculture, wildlife and health, sea level rise and some extreme weather effects; they do not include the possible impacts of 'climate catastrophes', or of social impacts such as famine or mass migration which would make the social cost of carbon much higher.

³¹ Estimating the Social Cost of Carbon Emissions, Government Economic Service Working Paper 140, www.hm-treasury.gov.uk

Table 16: Avoided damage cost of reductions in CO2 and CO2 equivalent (incremental to Option 1 BAU)						
Range for social cost of carbon = £45-164 with central estimate of £85 (2005 prices)		2006	2007	2008	2009	2010
		£m	£m	£m	£m	£m
Option 2	Low	- 0.343	- 1.829	- 0.766	2.232	1.892
	Central	- 0.637	- 3.353	- 1.389	4.008	3.364
	High	- 1.223	- 6.402	- 2.635	7.559	6.307
Option 3	Low	- 0.739	- 2.246	- 1.748	1.188	2.353
	Central	- 1.371	- 4.118	- 3.171	2.133	4.184
	High	- 2.633	- 7.861	- 6.017	4.023	7.845
Option 4	Low	0.376	- 1.923	- 2.099	1.330	1.717
	Central	0.698	- 3.526	- 3.807	2.389	3.053
	High	1.340	- 6.731	- 7.224	4.506	5.724
Option 5	Low	- 0.923	- 2.594	- 1.200	1.491	1.831
	Central	- 1.712	- 4.755	- 2.176	2.677	3.255
	High	- 3.288	- 9.078	- 4.130	5.048	6.103
Option 6	Low	- 0.888	- 2.283	- 1.444	1.527	1.792
	Central	- 1.647	- 4.185	- 2.620	2.742	3.187
	High	- 3.163	- 7.990	- 4.972	5.172	5.975
Option 7	Low	2.153	0.753	0.616	0.887	1.899
	Central	3.990	1.381	1.118	1.593	3.375
	High	7.665	2.636	2.122	3.005	6.329

4.12 Negative values appear in the table since we are comparing the new target scenarios to an existing set of targets (which featured in the Government's "Mini Regulatory Impact Assessment of Targets of future targets under the Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (as amended)" published in November 2003) and suggests that the current set of targets, in some instances, are favourable. However, the benefits associated with option 7, which are the targets being taken forward post consultation are all positive, which would suggest that the new targets are favourable to the existing ones.

4.13 Taking into account the reduction in CO2 and climate change damage costs, disamenity and avoided financial cost of landfill, total benefits are given in Table 18.

Table 17: Total benefits from reduction in CO2 equivalent, avoided financial cost and disamenity from landfill							
		2006	2007	2008	2009	2010	NPV
		£m	£m	£m	£m	£m	£m
Option 2	Low	5.963	5.189	6.871	10.013	9.761	34.928
	Central	10.167	8.658	11.681	17.307	16.813	59.698
	High	16.589	13.401	18.912	29.483	28.479	98.602
Option 3	Low	3.255	0.090	2.318	7.776	11.466	22.512
	Central	5.480	- 0.116	3.791	13.388	19.752	38.194
	High	8.663	- 1.264	5.461	22.577	33.509	62.104
Option 4	Low	4.930	1.572	1.963	7.919	9.611	23.799
	Central	8.522	2.463	3.149	13.644	16.535	40.557
	High	14.167	3.143	4.245	23.060	27.950	66.322
Option 5	Low	3.096	- 0.248	2.872	8.081	9.719	21.296
	Central	5.173	- 0.741	4.794	13.934	16.730	36.079
	High	8.063	- 2.461	7.362	23.606	28.318	58.526
Option 6	Low	3.125	0.058	1.449	4.487	4.780	12.746
	Central	5.229	- 3.983	- 0.021	10.226	11.077	20.238
	High	8.174	- 1.383	3.190	13.503	14.386	34.531
Option 7	Low	6.371	3.302	3.702	6.437	9.969	27.511
	Central	11.217	5.743	6.398	11.079	17.170	47.695
	High	19.580	9.829	10.827	18.643	29.071	81.332

4.14 Table 18 above shows that between 2006 and 2008, option 7, which is the target scenario being taken forward into the packaging Regulations (as a result of consultation) has some of the highest benefits associated with it (other than option 2 see paragraph 4.15 below).

4.15 As described above economic and environmental benefits are achieved by diverting waste away from landfill and recycling material, rather than using virgin materials. It is also worth noting that all of the options included above, except option 2 meet the Directive targets. Option 2, was only included for illustrative purposes and still uses the existing targets, but includes the additional tonnages that the Government expects to obligate from leased and franchise packaging. Whilst it may appear to have the greatest economic and environmental benefits in some years, this target scenario misses the glass and plastic targets in 2008, but significantly exceeds the recovery target, hence the high benefits associated with it. Option 3 sets targets in a straight line from 2006 to 2008, hence it only requires industry to do what is necessary to meet targets and no more, unlike, for example, option 4 which front loads the targets. If the targets are front loaded more packaging waste will need to be collected in say 2006 than is perhaps necessary, but if this option had been taken forward it would have given the UK greater confidence that the targets will be met in 2008, since businesses will attain higher recycling rates in the early years. Option 5 back loads the targets which would mean that less packaging waste would be recycled in say 2006 and possibly 2007 than in other options, which is why this option also has comparatively low benefits. This option would require the majority of the effort needed to meet Directive targets to be undertaken in 2008 increasing the chance of the UK failing to meet these targets. Option 6 only sets targets that aim to just meet the Directive targets, therefore when compared to the other options it also only attracts low environmental benefits.

4.16 Option 7 is an option which sits between option 3 and option 6. Consultation responses, generally favoured option 3 although a number of responses did support option 6. In light of responses the Government developed option 7, which sets targets that increase in roughly equal increments year on year and builds small cushions into the 2008 targets (which are greater than those in option 6, but not as large as those in option 3). However, the benefits of option 7 do not appear to fall between those attained by options 3 and 6 as would be expected, they are in fact much greater. Options 3 and 6 were modelled early in 2005 with the latest data available to Government at that time. However, option 7 has been modelled using revised data for 2005 including, for example, data on packaging reported by obligated businesses and third quarter reprocessing and export tonnages and also revised estimates for the amount of leased and franchise packaging we can expect to obligate from 2006 onwards.

Social

4.17 The Government has not been able to identify any social benefits although packaging targets could act as a driver for collection of other waste streams.

CHANGES TO THE SCHEME APPROVAL REGIME

Option 1: 'business as usual'

Economic

4.18 Business as usual would mean no change to the current approval regime. Schemes would not need to apply annually to Defra or the Scottish Executive for approval and they would not be required to submit their operational plans to Defra/Scottish Executive, hence there would be no additional economic benefits.

Environmental

4.19 The Government was unable to identify any additional environmental benefits.

Social

4.20 The Government was unable to identify any social benefits.

Option 2: changing the approval process

Economic

4.21 At present if a scheme fails to meet the recovery and recycling obligations of its members and is found not to have taken reasonable steps, the scheme automatically loses the Secretary of State's approval and must re-apply. The Secretary of State may or may not decide to re-approve the scheme. Therefore, if a scheme performs poorly one year, it is possible that the Secretary of State will not approve the scheme the following year.

4.22 Under this option the Government proposed giving the Secretary of State a third choice, which would be to grant “conditional approval”. The majority of consultation responses received in relation to this issue agreed with the Government that conditional approval should be introduced. Conditional approval could be given in a number of circumstances, but generally it will be reserved for cases where the Secretary of State is not content to give full approval, but the scheme indiscretion was not serious enough to warrant refusal of approval. This third option would allow the Secretary of State to grant conditional approval where under the current system the scheme might be refused approval and cease operating. The scheme would be able to continue operating under conditional approval for one more year, during which time it must rectify the problems it experienced in the previous year. If it does not, the Secretary of State is unlikely to award conditional approval again.

4.23 Another advantage of allowing conditional approval to a scheme that may have failed to comply in the previous year, and which may therefore be the subject of an Agency inquiry, is that the scheme may be registered, and the producers that are members of that scheme will have some clarity about what they need to do that year. They will also be aware that their scheme was not performing as well as it might have and can take whatever action they wish in these circumstances. By adding clarity about what happens when a scheme has failed in the previous year, it is considered that the proposals put forward are in the interests of the system, and of the functioning of the market in the first half of the year.

Environmental

4.24 A scheme which has received conditional approval will still be able to operate, hence it will still be able to contribute towards the achievement of the Directive recovery and recycling targets in 2008.

Social

4.25 The Government was unable to identify any social benefits.

Action based on consultation responses

4.26 Since the majority of responses to the consultation were in favour of conditional approval, the Government will be including provisions in the Regulations to enable the Secretary of State to grant conditional approval to a compliance. The benefits identified above will still apply despite the decision not to require annual approval of schemes.

SCRUTINY OF SCHEMES' AND LARGE PRODUCERS' OPERATIONAL PLANS

Option 1: 'business as usual'

Economic

4.27 Business as usual would mean no change to the current Regulations. Schemes would not be required to submit their operational plans to Defra or the Scottish Executive, hence there would be no additional economic benefits.

Environmental

4.28 The Government was unable to identify any additional environmental benefits.

Social

4.29 The Government was unable to identify any social benefits.

Option 2: scheme and large producer business plans to be submitted to Defra

Economic

4.30 The additional scrutiny of compliance schemes' and large producers' operational plans which will be undertaken by Defra and the Scottish Executive (as endorsed by industry in their consultation responses), could reduce industry's costs of compliance with the packaging targets. Defra will be looking at the plans to ensure that sufficient focus is being placed on the 2008 targets and that steps are being taken now to ensure that the Directive targets are going to be met. If industry start taking the necessary steps sooner rather than later, the cost of compliance should only increase gradually year on year. For example, if investment is made in collection infrastructure now or compliance schemes set in place contracts with Local Authorities to collect packaging waste from households then PRNs are likely to be available in future years, keeping costs at a reasonable level. However, if action is not taken now and left until say late 2007 or possibly even 2008, the costs of compliance could escalate in those years if PRNs are in short supply. It could also increase the possibility of the UK failing to meet the Directive targets. By ensuring that schemes and large producers plan ahead, the Government believes that it could be possible to reduce the costs of compliance, and increase the chance of meeting the Packaging Directive targets.

Environmental

4.31 The additional scrutiny that the operational plans will be subjected to by Government should help to ensure that schemes and large producers meet their obligations in 2008 and by doing so, ensuring that additional packaging waste is diverted from landfill and the use of raw materials is reduced.

Social

4.32 The Government was unable to identify any social benefits.

Action based on consultation responses

4.33 Since the majority of responses to the consultation agreed that schemes and large producers should be required to provide their operational plans to Defra/ Scottish Executive, the Regulations will be amended accordingly. The Government believes that the benefits identified above will still apply as consultation responses did not suggest otherwise.

5. COSTS

Summary

5.1 This chapter considers the costs of the options detailed in chapter 3 and, in particular, the options being taken forward in light of consultation responses. The “costs” of each option are considered in terms of the following three criteria and are compared with the ‘business as usual’ option:

- economic;
- environmental; and
- social.

5.2 The costs of the options are as follows –

- targets options – option 7, the target scenario which the Government will be incorporating into the packaging Regulations appears to be one of the more expensive options. However, option 7 was modelled following the consultation, and has taken into account not only views expressed in consultation responses, but also revised data for 2005, whereas, the other options were modelled earlier this year using data that was available at that time;
- scheme approval regime – two options were put forward to consultation. Option 1 “business as usual” had no additional costs associated with it. Option 2, proposed that schemes should apply for approval annually and also the introduction of “conditional approval”. Industry were not in favour of annual approval (so it will not be taken forward), however, consultees did agree with conditional approval. Where a compliance scheme is granted conditional approval the scheme will be required to pay an extra fee to cover the costs of the additional monitoring that will be undertaken by the Agencies in that year (in relation to their scheme);
- scrutiny of scheme and large producer operational plans - two options were put forward. Option 1 “business as usual” had no additional costs associated with it. Option 2, proposed that schemes and large producers should be required to send their operational plans to Defra / Scottish Executive each year. Industry were in favour of this proposal, which the Government believes will place minimal costs on industry. However, schemes and/or large producers may incur costs if their plan is found to be deficient and it needs to be revised.

BUSINESS RECOVERY AND RECYCLING TARGET SCENARIOS

The model used to calculate costs

5.3 The model used to calculate the costs of the target scenarios was commissioned from AEA Technology by Defra. The model uses a number of key assumptions which include -

- future prices – that in the future the costs of compliance will tend towards the actual costs of collection, sorting and reprocessing minus the product value;
- price elasticity;
- data – e.g.
 - the costs associated with collection, sorting, recycling and product value;
 - estimated tonnages of packaging flowing into the waste stream 2005-2010;
 - estimated obligated tonnages 2005-2010;
 - recovery and recycling 1999-2004;
 - amount of packaging in commercial and industrial and household waste streams 2006 - 2010.

5.4 Further information on the model can be found at Annex A.

Economic

5.5 Reductions in disamenity and landfill costs are considered to be benefits, are counted on that side of the calculation and discussed in the previous section.

5.6 The costs of options 2 to 7 are given in Table 18 and are incremental to business as usual (option 1). Sales of recyclate are subtracted from collection and recycling costs to produce net costs. The costs are slightly higher than the original target profile announced in 2003, but there have been a number of changes to the modelling parameters since then, not least revisions to the underlying data.

	2006	2007	2008	2009	2010
Option 2	6.427	6.385	9.147	10.907	9.347
Option 3	4.041	2.169	6.269	11.898	15.589
Option 4	7.072	4.614	4.972	11.118	14.736
Option 5	2.510	1.341	5.789	11.633	12.628
Option 6	2.072	0.375	5.847	12.305	13.055
Option 7	7.294	6.112	6.185	8.955	11.809

5.7 Option 7, the target scenario which has been devised in light of consultation responses is one of the more expensive options. As mentioned in Chapter 4, consultation responses, generally favoured option 3 although a number of responses did support option 6, therefore option 7 has been devised as an option which sits between options 3 and 6. However, the costs associated with option 7 do not fall between these other two options, since option 7 has been modelled using revised data for 2005 including, for example, data on packaging reported by obligated businesses and third quarter reprocessing and export tonnages and also revised

estimates for the amount of leased and franchise packaging we can expect to obligate from 2006 onwards.

Environmental

5.8 Environmental costs such as climate change emissions from the energy use for recycling are discussed in the benefits section, as they are netted off from the environmental benefits of diversion from landfill.

Social

5.9 The Government was unable to identify any social costs.

Summary of results

5.10 The net benefit of the options (benefits minus costs), for the Directive and indicative targets up to 2010, given in tables 19 and 20, run from negative to positive. It should be noted that the net benefits, whether positive or negative, are incremental to the considerable net benefit of the original target profile announced in 2003. In addition, the primary reason for the proposed changes are a more equitable distribution of the obligation.

5.11 Option 7 which is the target scenario to be incorporated into the Regulations following consultation has the highest net benefits associated with it, other than option 2, which was only included in the consultation document for illustrative purposes only. However, some of these perceived additional net benefits could be because, as mentioned in chapter 4, options 2 – 6 were modelled towards the beginning of this year (using the most reliable data at the time), whereas option 7 was modelled following the consultation using revised data for 2005.

Table 19: Net Benefit of Packaging Targets to the 2008 Directive target								
	NPV of Benefits			NPV of costs	NET BENEFIT (NPV of Benefits minus NPV of Costs)			
	Low	Central	High		Low	Central	High	
	£m	£m	£m	£m	£m	£m	£m	
Option 2	17.391	29.436	47.192	21.135	- 3.744	8.301	26.056	
Option 3	5.506	8.906	12.540	11.989	- 6.483	- 3.082	0.551	
Option 4	8.281	13.841	21.167	16.171	- 7.890	- 2.330	4.995	
Option 5	5.538	8.932	12.558	9.209	- 3.671	- 0.277	3.349	
Option 6	4.534	1.362	9.816	7.892	- 3.358	- 6.531	1.923	
Option 7	13.017	22.739	39.183	18.973	- 5.956	3.765	20.209	

Table 20: Net Benefit of Packaging Targets 2006 to 2010

	NPV of Benefits			NPV of costs	NET BENEFIT (NPV of Benefits minus NPV of Costs)		
	Low	Central	High		Low	Central	High
	£m	£m	£m	£m	£m	£m	£m
Option 2	34.928	59.698	98.602	39.118	- 4.190	20.579	59.483
Option 3	22.512	38.194	62.104	36.305	- 13.793	1.889	25.799
Option 4	23.799	40.557	66.322	39.041	- 15.242	1.516	27.281
Option 5	21.296	36.079	58.526	30.706	- 9.410	5.373	27.820
Option 6	12.746	20.238	34.531	30.368	- 17.621	- 10.129	4.164
Option 7	27.511	47.695	81.332	37.342	- 9.831	10.353	43.990

CHANGES TO THE SCHEME APPROVAL REGIME

Option 1: 'business as usual'

Economic

5.12 Business as usual would mean no change to the current approval regime so schemes would not need to apply annually to the Secretary of State for approval and they would not be required to submit their plans to Defra or the Scottish Executive, hence there would be no additional costs to industry.

Environmental

5.13 The Government was unable to identify any additional environmental costs.

Social

5.14 The Government was unable to identify any social costs.

Option 2: changing the approval process

5.15 Under this option the Government proposed giving the Secretary of State a third choice, which would be to grant "conditional approval". The majority of consultation responses received in relation to this issue agreed with the Government that conditional approval should be introduced.

Economic

5.16 Although the packaging industry were not in favour of the Government requiring compliance schemes to apply for approval annually, they were in favour of the introduction of conditional approval. The Government believes that the additional costs to industry overall of this change will be minimal. Compliance schemes which are granted conditional approval will have to pay a higher registration fee to the Agencies than schemes granted full approval, since the Agencies will be required to undertake additional monitoring during the year to ensure that the scheme is on

course to meet its members' obligations. The fee which a scheme will be required to pay is related to their recovery obligation as follows –

- up to 24,999 tonnes recovery obligation - £1,540;
- from 25,000 tonnes up to 249,999 tonnes recovery obligation £2,310;
- over 250,000 tonnes recovery obligation £3,080.

5.17 The costs to Government for scrutinising the operational plans are discussed below (paragraph 5.25).

Environmental

5.18 The Government was unable to identify any environmental costs.

Social

5.19 The Government was unable to identify any social costs.

Action based on consultation responses

5.20 As mentioned above, the Government will not be requiring schemes to apply for approval annually, however, the Government will be including provisions in the Regulations to enable the Secretary of State to grant conditional approval. The Government still considers the costs associated with this change to be minimal and consultation responses did not indicate otherwise.

SCRUTINY OF SCHEMES' AND LARGE PRODUCERS' OPERATIONAL PLANS

Option 1: 'business as usual'

Economic

5.21 Business as usual would mean no change to the current Regulations. Schemes would not be required to submit their operational plans to Defra or the Scottish Executive, hence there would be no additional costs to schemes or to Government for the scrutiny of these plans.

Environmental

5.22 The Government was unable to identify any additional environmental costs.

Social

5.23 The Government was unable to identify any social costs.

Option 2: scheme and large producer business plans to be submitted to Defra

Economic

5.24 The majority of responses received in relation to this matter agreed with the Government that compliance schemes and large producers should be required to submit their operational plans, which they currently send to the Agencies, to Defra / Scottish Executive each year. The Government expects the costs to industry of this change to be minimal. A scheme may incur additional costs if its plan was found to be deficient in one or more areas, as the Government would expect the scheme to amend the relevant sections. There will be no increases in Agency registration fees.

5.25 Although the cost to industry of this proposal will be minimal there will be additional costs placed on Government. The Government will commission consultants to design and develop a database which will assist the analysis of the plans. The Government expects the costs of developing the database to be in the region of £30,000. In addition the Government will employ consultants to carry out the analysis each year. If we assume that there are 20 compliance schemes and 110 large producers submitting plans to Government and the consultants spend 1 day analysing each of the scheme plans and half a day on the producer plans at a cost of £500 per day then the cost to Government will be approximately £37,500 each year. Government officials will also assist the consultants as necessary, but it is not possible to quantify the level of involvement which will be required at present.

Environmental

5.26 The Government was unable to identify any environmental costs.

Social

5.27 The Government was unable to identify any social costs.

Action based on consultation responses

5.28 The majority of responses received (as discussed in Chapter 3) were in favour of schemes and large producers submitting their plans to Defra for additional scrutiny and the Regulations will be amended accordingly. The Government still considers the cost to industry of this new requirement to be minimal and consultation responses did not indicate otherwise.

6. Equity and Fairness

6.1 The target scenarios (3, 4, 5, 6 and 7) discussed above aim to increase equity and share the recovery and recycling obligations more fairly than under the current Regulations by including more businesses, for example, by obligating leased and franchise packaging. The additional obligated packaging enables UK business targets to be lower than they would otherwise have been, which lowers costs for existing businesses.

6.2 The Regulations have no undue effect on rural areas, racial groups, income groups, gender groups, age groups, people with disabilities, or people with particular religious views.

7. Consultation with small businesses: the small firms impact test

7.1 Businesses that do not simultaneously satisfy the two threshold tests in the Regulations (i.e. an annual turnover in excess of £2m and handle more than 50t of packaging) are excluded from the producer responsibility obligations in the Regulations. The proposed changes do not affect small businesses below these thresholds.

8. Competition assessment

8.1 All of the target scenarios discussed in this RIA will affect the recovery and recycling obligations of approximately 10,000 businesses in the UK. The existing targets are being revised following changes to underlying data, but the costs incurred under the new targets (in the same way as existing targets) will be greater for some businesses than others, since the costs are related to the amount of packaging the business handles. Therefore, the more packaging a business handles the larger their obligation and the higher the costs of meeting that obligation. The Government does not expect the revised targets to affect the current market structure or change the number or size of firms. New businesses will not face higher charges than existing companies and the proposals should not restrict businesses choice of products. The Government is not aware of the industry being characterised by rapid technological change.

8.2 The Government has examined competition in the recycling market, material specific market (e.g. glass and plastic) and the end user market (e.g. the market for bottles). In general, the Government was unable to identify markets where there are serious competition concerns. Competition in the recycling market is unlikely to be adversely affected as a result of adopting the new targets. Indeed, the setting of future targets for recycling of particular materials may well increase demand for recycling and this could lead to new businesses entering the market and increase competition in recycling services.

8.3 All of the target scenarios (including the final targets (scenario 7) which have been agreed following consultation) set material specific targets and may therefore cause a distortion in the market for particular types of packaging. An example of this is the market for bottles where glass will face a considerably higher recycling target than plastic. This recycling differential could put glass manufacturers at a disadvantage, for example when fillers are selecting a container for their goods, although plastics have greater difficulties in terms of collection, sorting and end-use markets. However, it is anticipated that the increased cost of this regulation will be small in relation to a glass manufacturers total costs. Therefore, the Government does not believe that competition will be significantly affected in either this or other sectors with potentially high or differing recycling rates e.g. the aluminium and steel markets.

9. Enforcement and Sanctions

9.1 The packaging Regulations are enforced by the Environment Agency in England and Wales, by the Scottish Environmental Protection Agency in Scotland and by the Environment and Heritage Service in Northern Ireland.

9.2 The consultation document did not include proposals for additional sanctions.

10. Monitoring and Review

10.1 The UK packaging system is monitored continually by Government, the Agencies, the Advisory Committee on Packaging and industry generally.

10.2 The Advisory Committee on Packaging, which represents the packaging industry, also monitors the effectiveness of the packaging Regulations and advises Government as and when changes are needed. The ACP was responsible for the majority of changes made to the Regulations in 2003 and also many of the proposals that the Government consulted on this year. The Government expects the Committee to continue to provide input in the future.

10.3 Accredited reprocessors and exporters are required to provide quarterly returns to the Agencies, which include data on the amount of reprocessing that has taken place that quarter. This enables the Government to track progress throughout the year against packaging targets. This data is also published on the Defra website so that industry too can monitor the UK's performance.

10.4 Each year, the Department produces a Data Note which shows current and historical packaging data including, for instance, the amount of reprocessing that has taken place each year and the corresponding information on PRN and PERN revenue.

10.5 Furthermore, the UK is required to provide the European Commission with data, 18 months after the end of each year.

11. Consultation

11.1 Within Government

DTI, Treasury, Cabinet Office, Scottish Executive, Welsh Assembly Government, Northern Ireland Administration, Environment Agency, EHS NI, SEPA.

11.2 Public Consultation

This RIA accompanied a Government consultation document and presented overall costs and benefits of the proposed changes. The Government consulted for a period of twelve weeks and this RIA has been finalised in light of comments received from stakeholders.

12. Summary and Recommendation

12.1 This RIA considers a number of changes, which will be made to the packaging Regulations and were designed to improve the working of the system, including amended packaging targets, changes to the scheme approval process and scrutiny of scheme and large producer business plans. Below is a summary table of the options put forward to industry for consideration and the changes being made following consultation.

Table 21: Summary table

Option	Total cost per annum economic, environmental, social	Total benefit per annum economic, environmental, social
TARGET SCENARIOS		
Option 1 – Business As Usual (Existing targets, no increase in obligated tonnage)	Would leave the current targets in the packaging Regulations as they are now. Therefore, the UK will not meet some of the Packaging Directive targets in 2008.	Would leave the current Regulations as they are now, therefore there would be no additional benefits.
Option 2 (Existing targets, increase in obligated tonnage)	This target scenario also used existing targets, and like option 1, would not meet some of the Directive targets in 2008. Included for illustrative purposes only. Economic - cost of this option to industry for 2006 - 2008, incremental to business as usual would be £21.135 million. Environmental – in each of the target options discussed, costs, such as climate change emissions from the energy use for recycling are included in the benefits, as they are netted off the environmental benefits of diversion from landfill.	Economic/environmental - total benefits of this option from reduction in CO2 equivalent, avoided financial cost and disamenity from landfill, incremental to business as usual, for 2006 – 2008 would be in the range of -£3.744 to £26.056 million.
Option 3 (Targets set in straight line, increase in obligated tonnage)	Economic - cost of this option to industry for 2006 - 2008, incremental to business as usual would be £11.989 million.	Economic/environmental - total benefits of this option from reduction in CO2 equivalent, avoided financial cost and disamenity from landfill, incremental to business as usual, for 2006 – 2008 would be in the range of -£6.483 to £0.551 million.

Option 4 (Front loaded targets, increase in obligated tonnage)	Economic - cost of this option to industry for 2006 - 2008, incremental to business as usual would be £16.171 million.	Economic/environmental - total benefits of this option from reduction in CO2 equivalent, avoided financial cost and disamenity from landfill, incremental to business as usual, for 2006 – 2008 would be in the range of -£7.890 to £4.995 million.
Option 5 (Back loaded targets, increase in obligated tonnage)	Economic - cost of this option to industry for 2006 - 2008, incremental to business as usual would be £9.209 million.	Economic/environmental - total benefits of this option from reduction in CO2 equivalent, avoided financial cost and disamenity from landfill, incremental to business as usual, for 2006 – 2008 would be in the range of -£3.671 to £3.349 million.
Option 6 (Directive target option, increase in obligated tonnage)	Economic - cost of this option to industry for 2006 - 2008, incremental to business as usual would be £7.892 million.	Economic/environmental - total benefits of this option from reduction in CO2 equivalent, avoided financial cost and disamenity from landfill, incremental to business as usual, for 2006 – 2008 would be in the range of -£3.358 to £1.923 million.
Option 7 (Targets devised following consultation, taking into account responses received and the latest available data)	Economic - cost of this option to industry for 2006 - 2008, incremental to business as usual will be £18.973 million.	Economic/environmental - total benefits of this option from reduction in CO2 equivalent, avoided financial cost and disamenity from landfill, incremental to business as usual, for 2006 – 2008 will be in the range of -£5.956 to £20.209 million.
SCHEME APPROVAL REGIME		
Option 1 – Business As Usual	Would leave the packaging Regulations as they are now. Therefore there would be no additional costs.	Would leave the packaging Regulations as they are now. Therefore there would be no additional benefits.
Option 2 ("Conditional approval")	<p>Overall: minimal affect on costs</p> <p>Economic - schemes granted conditional approval will be required to pay a higher registration fee to the Agencies to pay for the extra level of Agency monitoring that is required. The fee to be paid will be determined by the scheme's obligation as follows -</p> <ul style="list-style-type: none"> • up to 24,999 tonnes recovery obligation - £1,540; • from 25,000 tonnes up to 249,999 tonnes recovery obligation - £2,310; • over 250,000 tonnes recovery obligation - £3,080. 	<p>Economic – the introduction of "conditional approval" will enable some schemes who fail to meet their members' obligations one year to continue operating in the following year, which may not be the case under the current system. Increased clarity for scheme members who will be aware that their scheme is operating on the basis of conditional approval. The proposal should assist the functioning of the PRN market.</p> <p>Environmental - a scheme could continue to operate with conditional approval hence it will still be able to contribute towards the achievement of the Directive targets.</p>
SCRUTINY OF OPERATIONAL PLANS		
Option 1 – Business As Usual	Would leave the packaging Regulations as they are now. Therefore there would be no additional costs.	Would leave the packaging Regulations as they are now. Therefore there would be no additional benefits.

<p>Option 2 (Schemes and large producers required to send their operational plans to Defra/ Scottish Executive)</p>	<p>Overall: minimal affect on costs</p> <p>Economic - Agency fees will not increase as a result of the additional scrutiny of operational plans. The only costs incurred by schemes and large producers will be in relation to sending a copy of an operational plan to the Department and where a plan is considered to be deficient in one or more areas, the scheme or producer will be required to amend the relevant sections.</p>	<p>Economic – the additional scrutiny of operational plans could lower industry’s compliance costs with the packaging targets. The Government will be looking to see that steps are being taken now to ensure that PRNs will be available in later years, therefore avoiding a shortage in 2008 and the associated higher costs.</p> <p>Environmental – the proposals should help to ensure that schemes and large producers meet their obligations in 2008 and therefore additional packaging waste will be diverted from land fill and there will be a reduction in raw materials and energy use.</p>
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13. Technical Changes

13.1 Some technical changes have been made to the Regulations. Most of which were referred to in the earlier consultation paper and associated RIA published on 30 March 2005. There were also other issues that required some adjustment, such as the issue of how a producer's obligation will be fully discharged if the scheme of which he is a member is deregistered part way through a year. The Regulations appeared to be unclear on this. The intention therefore is, that if targets are not to be missed by producers and by the UK, that all obligations should be fully discharged even if there is a change of scheme mid-year because one scheme has been deregistered. If part of a producer's obligation has been discharged by the scheme before deregistration, the producer will have to obtain evidence of this. If it has not, the full obligation goes with the producer. What is clear is that that producer's obligation must, by the end of the year, be shown to have been fully discharged. The Government was unable to identify any significant economic, environmental or social costs and benefits associated with any of the technical changes which have been made to the Regulations.

DECLARATION

I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.

Signed: ***Ben Bradshaw***

Date: ***22nd November 2005***

Ben Bradshaw

Minister for Local Environment, Marine and Animal Welfare

Department for Environment, Food and Rural Affairs

CONTACT POINT

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Further details of the AEAT model used to calculate costs

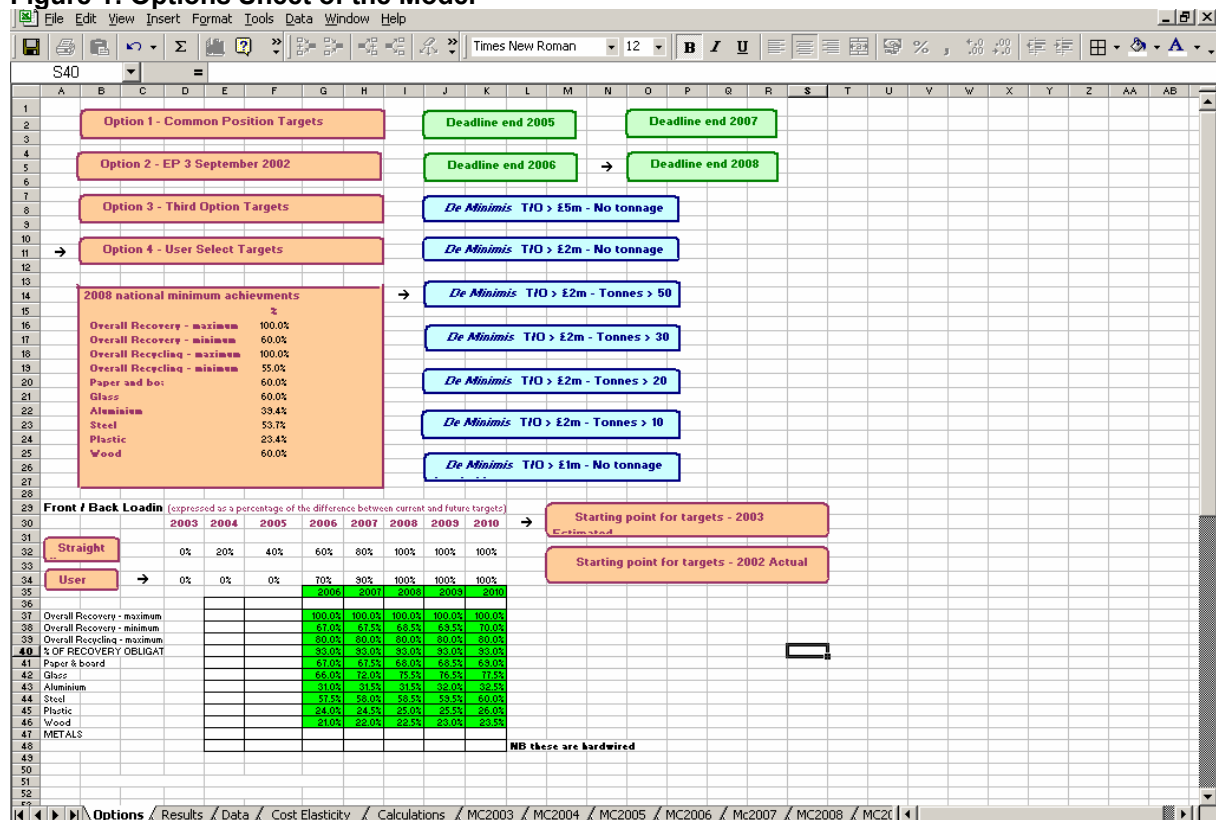
Modelling

Model Basis

Option selection via macros

1. In order that the model can be as flexible as possible, various scenario options can be easily selected by the use of macro buttons in the 'Options' worksheet of the excel workbook. The user can see the options that he / she has selected, as the selected buttons are flagged with an arrow to the left-hand side. Thus the options sheet may look like Figure 1 below.

Figure 1: Options Sheet of the Model



2. In the user select targets option, the user is able to select any targets they wish. This can be very useful for examining 'what if?' scenarios.

Model drivers

Use of cost ranges

3. In a 'mature' market, the prices paid for Packaging Waste Recovery Notes and Packaging Waste Export Recovery Notes (PRNs and PERNs respectively) will reflect

the true costs of recovery and recycling of each packaging material through the respective outlet / destination. Examination of the range and average prices paid for PRNs and PERNs over the years since their introduction clearly indicates that the situation is far removed from being mature.

4. For the purposes of the model, we have therefore placed reliance on cost ranges obtained from industry for collection, sorting, reprocessing and materials (see table 23 and 24 below) rather than on historic trends in the prices paid for PRNs. There is some uncertainty with regard to costs hence the costs are expressed as ranges. Random sampling of costs within these ranges forms the basis of the Monte Carlo method of determining which packaging materials and from which source are preferentially selected for recovery / recycling.

Table 22: Cost estimates for collecting and recycling packaging waste from the C&I waste streams

Commercial and Industrial		
Material	Collection, sorting & reprocessing (£/tonne)	Material value (£/tonne)
Paper	30 - 60	25 - 35
Glass	40 - 60	(-5) – 0
Aluminium	100 -150	650 -750
Steel	25 - 35	50 - 90 (med term average)
Plastic	80 - 200	40 -140
Wood	25 - 50	0 -10
Recovery	15 - 30	(- 25) - (- 45)

Table 23: Cost estimates for collecting and recycling packaging waste from the household waste stream

Household		
Material	Collection, sorting & reprocessing (£/tonne)	Material value £/tonne
Paper (banks/kerbside)	25 - 80	10 - 20
Glass (banks/kerbside)	20 - 80	0 - 10
Aluminium (banks/kerbside)	150 - 400	650 - 750
Steel (banks/kerbside)	50 - 150	35 - 70
Plastic (banks/kerbside)	150 - 400	(- 30) - 20
Wood	NA	NA
Recovery	30 - 40	(- 25) - (- 45)

Availabilities (C&I vs MSW) for recycling/recovery

5. In order to meet any targets set for recycling / recovery of packaging waste, material will generally be sourced from either the MSW stream or the C&I waste stream (although some packaging waste can be sourced from other waste streams, such as plastic film from agricultural waste). How much material is sourced from any

particular waste stream largely depends on a) the relative costs of recovery / recycling, and b) the availability of material from that source.

6. As far as the latter point is concerned, clearly if all the available quantities of a particular packaging waste material from (say) the C&I waste stream is recovered / recycled and still more of that material is needed in order to meet targets, then that material must be sourced from elsewhere (possibly at higher cost).

7. Furthermore, as the availability of a particular material is 'used up', the likelihood is that costs of recycling further material from that source will increase. This is because it will become increasingly more difficult (practically and financially) to obtain this scarcer material. This aspect is covered in the model by introducing cost elasticity to the cost range assumptions (see below) and also see table 25 below, which is an example of a table the model produces, which shows how much material would be sourced from the C&I and the household waste streams under, in this example, target scenario 3 (which was the Government's preferred option in the consultation document).

Table 24: Packaging waste (in tonnes) sourced from C&I and Household waste streams under scenario 3

			2006		2007		2008		2009		2010	
			Total	% Total	Total	% Total	Total	% Total	Total	% Total	Total	% Total
Plastics	Commercial	Total Packaging	750,586		769,097		784,479		800,169		816,172	
		Recycling	445,692	59%	476,575	62%	508,911	65%	565,401	71%	588,017	72%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
	Municipal	Total Packaging	1,329,279		1,362,062		1,389,303		1,417,089		1,445,431	
		Recycling	0	0%	0	0%	0	0%	0	0%	0	0%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
Paper	Commercial	Total Packaging	2,822,182		2,850,403		2,878,907		2,907,696		2,936,773	
		Recycling	2,821,814	100%	2,849,816	100%	2,878,851	100%	2,907,485	100%	2,935,997	100%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
	Municipal	Total Packaging	940,727		950,135		959,636		969,232		978,925	
		Recycling	406,657	43%	456,481	48%	441,803	46%	286,839	30%	329,334	34%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
Glass	Commercial	Total Packaging	650,000		662,500		675,000		687,500		700,000	
		Recycling	495,207	76%	500,188	76%	529,352	78%	664,785	97%	698,740	100%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
	Municipal	Total Packaging	1,950,000		1,987,500		2,025,000		2,062,500		2,100,000	
		Recycling	954,531	49%	1,078,038	54%	1,166,195	58%	1,438,965	70%	1,472,259	70%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
Aluminium	Commercial	Total Packaging	7,145		7,217		7,289		7,362		7,435	
		Recycling	7,105	99%	6,924	96%	7,115	98%	7,274	99%	7,373	99%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
	Municipal	Total Packaging	135,770		137,127		138,499		139,883		141,283	
		Recycling	135,738	100%	136,945	100%	138,356	100%	139,437	100%	141,275	100%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
Steel	Commercial	Total Packaging	204,751		203,728		202,709		201,695		200,687	
		Recycling	204,683	100%	203,615	100%	202,663	100%	201,635	100%	200,498	100%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
	Municipal	Total Packaging	477,824		475,434		473,057		470,692		468,339	
		Recycling	249,925	52%	207,127	44%	232,494	49%	261,302	56%	273,959	58%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
Wood	Commercial	Total Packaging	1,180,000		1,191,800		1,197,759		1,203,748		1,203,748	
		Recycling	432,543	37%	428,023	36%	478,814	40%	292,088	24%	296,845	25%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
	Municipal	Total Packaging	0		0		0		0		0	
		Recycling	0	0%	0	0%	0	0%	0	0%	0	0%
		Recovery	0	0%	0	0%	0	0%	0	0%	0	0%
Total Commercial Recycling/Recovery			4,376,856		4,465,125		4,628,426		4,650,957		4,762,292	
Total Municipal Recycling/Recovery			1777,039		1,878,608		1,956,126		2,114,255		2,182,006	

* Note: This table is for illustrative purposes only as it is generated by one iteration of the model, not the 10 used to calculate the figures in the wider RIA.

** Note: Where the cost ranges of municipal and C&I do not cross, the cheaper source of material will never be fully exhausted due to the units that the model runs in.

Cost elasticities

8. Given that as more and more of the available packaging waste material is recovered / recycled further recovery / recycling from a smaller pool of available material becomes increasingly more expensive. Thus costs tend towards the maximum. Included in the model is the Monte Carlo method a means of incorporating this elasticity of cost. This takes the form of the equation:

$$Y = AX^B$$

Where:

Y is the revised minimum cost

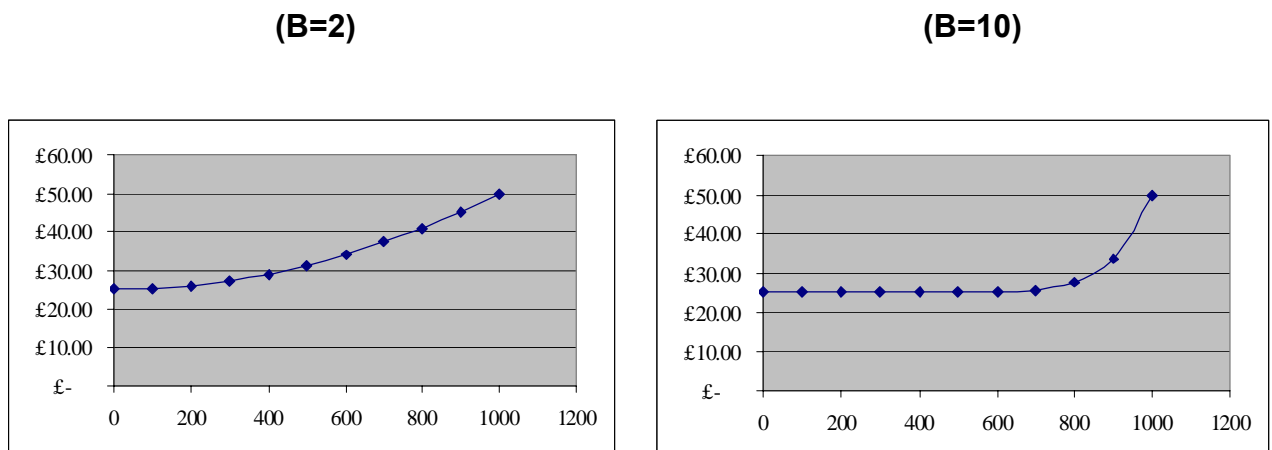
A is dependent on the value of B³²

X is the (cumulative recycled/recovered divided by the total availability) x (max cost – min cost)

B is the elasticity coefficient

9. The following example (figure 2) illustrates how minimum costs might vary as an availability of 1000 tonnes is used up for an elasticity coefficient (B=2 and B=10), where maximum and minimum costs start at £50 and £25 per tonne respectively. Clearly, the revised minimum cost tends more quickly towards the maximum cost as the availability of material declines. (note: a B coefficient of 1 would give a straight-line relationship). The value of coefficient B can be varied to select the most appropriate situation for cost elasticity for each packaging material.

Figure 2: Example of Effect of Cost Elasticity



10. In a future, more mature market situation for PRNs, where accredited reprocessing capacity remains in demand throughout the calendar year, it is very likely that PRN prices will exhibit this sort of elasticity behaviour.

Monte Carlo sampling techniques for achieving all targets

³² $(\max - \min) / (\max - \min)^B$

11. Nobody knows for certain the likely prices that will be paid by obligated companies for recycling / recovery in any particular year. A large range of factors will influence the market. Because of this great uncertainty, we can only assume that there will be a minimum and a maximum price that obligated companies will be prepared to pay. As obligated companies (and compliance schemes) have to meet statutory requirements, these prices will largely depend on the range of costs of recovery / recycling.

12. In a situation where there are separate cost ranges for recovery / recycling for each packaging waste material and from each waste stream, obligated companies and compliance schemes will seek the cheapest routes to obtaining evidence of compliance. For example, if an obligated company has targets to meet for paper and plastic packaging, it may well choose to have the minimum amount of plastic recycled whilst maximising paper recovery / recycling and overall recovery. In doing this, this company may have minimised its costs/tonne.

13. Similarly, if PRN prices are high, an obligated company might choose to wait until prices fall before purchasing (although the company might be running the risk that prices may rise further). Generally, a free market situation will tend to ensure that overall costs will be minimised.

14. This situation can be modelled using Monte Carlo sampling techniques. This is done in three stages:

1. meet the material specific recycling target,
2. meet the overall recycling target;
3. meet the overall recovery target; and

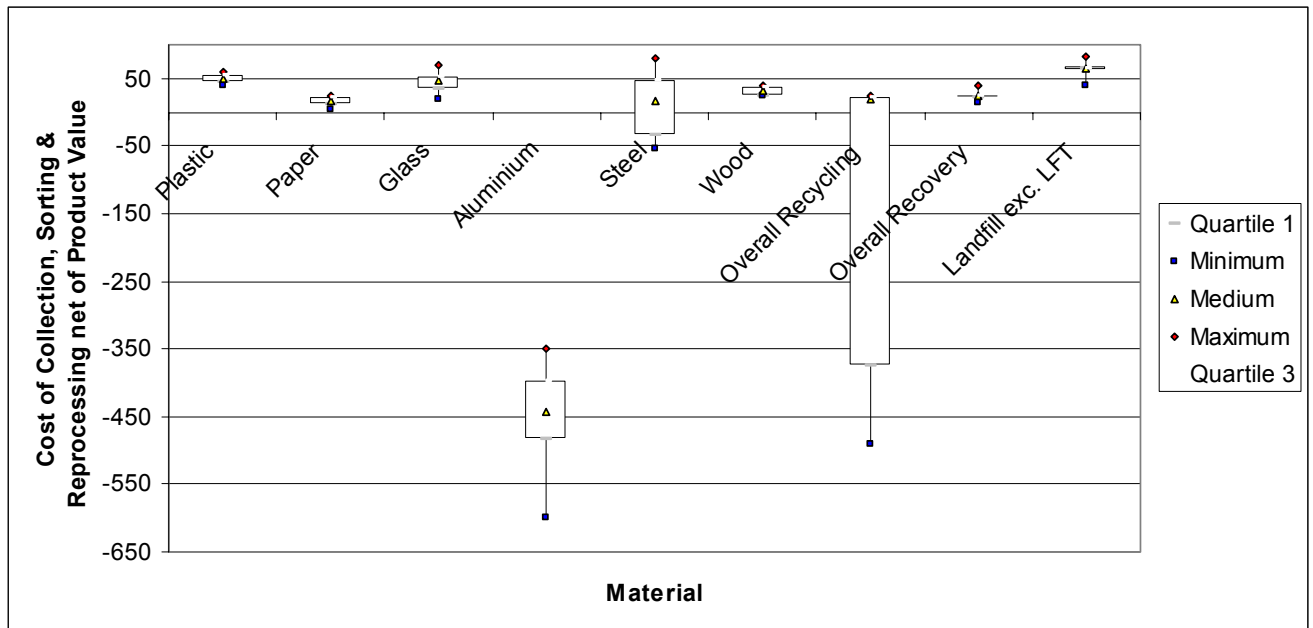
the model breaks down the tonnages to be recycled or recovered into increments (the model has been set to handle increments of 1/500th of each target). For each increment, a random cost/tonne figure between the particular minimum and maximum cost range set is generated for each material and for each source (MSW & C&I). The lowest cost/tonne figure is then selected for this increment. The procedure is then repeated for each increment until the targets are met. The end results are achievement of the targets by the lowest cost means (subject to any cost elasticity set for recycling and the availability of materials).

15. Figure 3 below shows an example from one year of the range of prices for reprocessing of each material, net of the product value of the recyclate. The price of reprocessing a material increases the more of it is recovered because businesses first source the most practical and least costly material to recycle, and move to less economic sources to achieve higher levels. The figures in the table reflect what can be seen in table 25, that a greater proportion of material is recycled from the waste streams with the lowest net cost.

16. The graph shows how the overall recycling target is met from several waste streams, thus it overlaps with the individual materials costs plots. Material is first sourced from the lowest cost source i.e. aluminium, and then as this is exhausted begins to be sourced from the next lowest priced and so on until the target is met.

Figure 3: Example price ranges for material reprocessed to meet individual and overall targets

	Plastic	Paper	Glass	Aluminium	Steel	Wood	Overall Recycling	Overall Recovery	Landfill exc. LFT
Quartile 1	46.13	12.29	34.88	-479.24	-33.80	25.03	-370.02	20.75	65.00
Minimum	40.16	5.15	20.35	-598.85	-54.98	25.03	-487.04	15.18	39.00
Medium	50.96	16.62	46.29	-438.42	17.77	32.91	18.41	23.10	65.00
Maximum	59.99	24.92	64.17	-350.75	79.97	39.99	24.98	39.83	82.00
Quartile 3	55.39	20.35	52.47	-391.37	48.22	36.48	21.18	24.65	65.00



* Note: This graph is for illustrative purposes only as it is generated by one iteration of the model, not the 10 used to calculate the figures in the wider RIA.

Basis for scrutiny of scheme and producer operational plans (see Chapter Three)

1. The overall aim of this project is to develop a mainly IT-based system which will enable Defra to carry out the scrutiny of compliance schemes' and large producers' (those handling more than 500 tonnes) operational plans (OPs), together with a qualitative scrutiny, to ensure that the UK is able to meet the 2008 and any subsequent Packaging Directive targets. The Department would also ideally like flexibility for the future (i.e. beyond 2008), even if at present, it is not thought that any particular analysis will be needed. In bidding to do this work, the successful organisation will be required to develop principally the I.T. based element of a system which is intended to comprise of both I.T. and qualitative scrutiny. The main objectives are as follows:

- (i) to enable the Department to produce a system capable of scrutinising compliance schemes' and large producers' operational plans including describing necessary reports and analysis;
- (ii) to decide upon the criteria to be included in part A (detailed below) of the operational plan and to design the Annex B template (detailed below).

2. It is intended that the scrutiny could include at least the following, in addition to any other measurements as the consultants consider necessary to ensure that 2008 targets are met:

- a. whether the scheme/producer has provided a declaration that it has considered what will be necessary to meet 2008 targets and has a plan to do so;
- b. whether it has a viable plan for the discharge of the 2008 targets as well as the interim 2006 and 2007 targets;
- c. what measures the scheme/producer intends to take to discharge its 2008 targets, factoring in any significant perceived future changes, i.e. in accordance with the criteria detailed in Schedule 4 Part IV 11(d) and (e);
- d. whether the reprocessors the scheme is intending to use have been named, and the associated tonnages provided; what the tonnages are, by material;
- e. whether each reprocessor has set out the steps to be or being taken, either by itself or by the scheme, or by both together, to ensure that the required tonnage of packaging waste will be **collected** and delivered to the reprocessor to enable the PRNs to be issued, and what these steps are;
- f. whether the scheme/producer has indicated in terms of a statement that sufficient funds are, or will, be made available for future investment, and proof as to how the funds are to be generated; and if so what funds/investment;
- g. whether other conditions of registration have been complied with;
- h. aggregating the producers' and schemes' plans and seeing whether tonnages are sufficient to meet the targets;

- i. ensuring that promised tonnages from reprocessors are consistent with their total capacity, and that promised tonnages can be delivered.

3. In developing a scrutiny system for operational plans which is mainly, but not entirely IT based, the functionality of the database would be relatively simple, but would allow the scrutiniser to compare a range of data across schemes and between reprocessors. It may be desirable, therefore, to develop an 'operational plan template' according to which the plans have to be submitted; e.g. a two part plan. Agency guidance could stipulate the type of qualitative information which is sought in part A; and part B (to be designed by consultants) could be in the form of a specific template, as suggested below:

part A would make up the majority of the qualitative information as required by the Regulations and expanded in the Environment Agency 'guidance on operational plans'. The Government would not require this information in the format of a specific template;

part B could take the form of an Annex and could contain any commercially sensitive information. It could also be in the form of a specific excel template (into which all schemes and large producers must enter their information). Schemes and large producers would be expected to send in their operational plans in electronic format, the data in Part B could then be uploaded into the database relatively easily.

4. The consultant would therefore be required to advise as to the content of part A and design the structure of template B. The Operational plan (parts A and/or B) could contain the following information:

- the number/tonnage of PRNs/PERNs for each of the six materials, EfW, overall recycling and overall recovery to be purchased quarterly for the years 2006, 2007, 2008, detailing any contingency methods that would be utilised to collect any materials which are lacking. The reported quarterly tonnages could then be cross-referenced against those which are expected;
- which reprocessors/exporters are going to provide these PRNs/PERNs, the tonnages involved, the nature of the contracts (e.g. 1 year, 3 year or rolling, whether firm or tentative) and whether they have sufficient capacity;
- how the reprocessors are intending to ensure that these materials are going to be collected, and what systems are in place to ensure that material is, or will become readily available;
- other planned sources of PRN/PERNs and tonnages/materials involved;
- tonnages/materials of PRN/PERNs to be acquired from members and given to the scheme;
- the tonnage of packaging waste material to be acquired from other sources for delivery to a reprocessor by scheme/producer and how this will be collected;
- any additional risk management plans to ensure that the scheme/producer recovery obligations are met. The latter could be in the format of a matrix or set of criteria, whereby schemes can use tick boxes or ranking correlation coefficients to assess the risk associated with each reprocessor contract;
- SWOT analysis by schemes/producers of reprocessor contracts under different market situations e.g. where PRNs are in short supply (and

reprocessors are in control), compared with when PRNs are ubiquitous and it is a “buyers market”.