

HOUSE OF LORDS

SESSION 2001–02
33rd REPORT

SELECT COMMITTEE ON
THE EUROPEAN UNION

PACKAGING AND PACKAGING
WASTE: REVISED RECOVERY AND
RECYCLING TARGETS

WITH EVIDENCE

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Q refers to a question in the oral evidence;
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para(s) refers to a paragraph in the Report (unless otherwise stated).

THIRTY-THIRD REPORT

23 JULY 2002

By the Select Committee appointed to consider European Union documents and other matters relating to the European Union.

ORDERED TO REPORT

PACKAGING AND PACKAGING WASTE: REVISED RECOVERY AND RECYCLING TARGETS

15194/01 COM(2001) 729 final Proposal for a Directive of the European Parliament and of the Council amending Directive 94/62/EC on Packaging and Packaging Waste

Executive Summary

1. We examine the European Commission's proposal to review targets for recovery and recycling of packaging and packaging waste set out in the 1994 Directive.
2. We demonstrate what has been recovered and recycled by the United Kingdom system since it was set up in 1998 to the end of the first review period—2001.
3. We assess how much it has cost the United Kingdom packaging industry to meet the 2001 targets.
4. We consider the packaging industry's ability to meet the revised targets for 2006 and to indicate the scale of costs.
5. We assess the potential costs of the amended targets that the European Parliament might wish to set under the co-decision procedure.
6. We conclude that:
 - the United Kingdom packaging industry could meet the European Commission's higher targets for 2006 but the annual cost would be between four and five times the annual cost in 2001, i.e. between £281 million and £343 million;
 - we doubted whether the United Kingdom packaging industry could meet the higher targets proposed by the European Parliament; the annual cost of meeting such targets would be between £878 million and £948 million more than the cost of meeting the European Commission targets;
 - the European Parliament's targets were not supported by cost benefit analysis and could not demonstrate a net environmental benefit;
 - although it would be unwise radically to alter the United Kingdom system, the system ought to be simplified;
 - the system needed to be tightened up:
 - (i) by providing better data regularly audited;
 - (ii) by clearer rules on compliance for obligated companies and compliance scheme operators;
 - (iii) by better co-ordination between the packaging industry, the local authorities and the regulatory agencies; and
 - (iv) by setting up a single authority to oversee how the industry could meet future targets.
 - the Government should demonstrate how it co-ordinated its resources to tackle the growing web of new environmental legislation from the European Commission.

A full list of recommendations is given in Appendix 7.

PART 1: INTRODUCTION

WHAT IS THIS REPORT ABOUT?

1. This Report looks at a draft Directive of the European Parliament and the Council which amends an earlier Directive and seeks to raise the targets for recovering packaging and packaging waste from the waste stream.

2. The Directive comes against a background of increasing concern to protect the environment and to produce sustainable economic growth in the European Union. This can be seen, for example, in the Directives dealing with the disposal of Refrigerators, the End-Life Disposal of Motor Vehicles, the Waste Electrical and Electronic Equipment Directive, and the Landfill Directive – which covers the disposal of, among other things, tyres. Packaging and packaging waste is only part of the general management of waste.

3. In 1994 the European Union agreed a Directive¹ which set targets for Member States aimed at reducing the amount of packaging and packaging waste that was going to landfill by demanding that such waste be accounted for and recovered. The intention was to even out practices in the single market to avoid possible distortions. Where there are big differences to producers in the cost of recycling packaging, those producers enjoying lower costs have a market advantage. Recycled products may also distort existing markets, as appears to be the case for wood (see para 50). So the objective of the Directive was to bring about a degree of unity of practice between different EU Member States over time.

RECOVERY, RECYCLING AND REPROCESSING

4. Recovery includes recycling as well as the recovery of energy by burning waste. Recycling is usually achieved through an industrial process which is known as reprocessing. Materials that are recycled are commonly called recyclates.

ROUTES TO RECOVERY AND RECYCLING

5. A basic principle of recovery and recycling is that “the polluter pays”. It is therefore for the packaging industry to pay for the disposal of packaging waste. There are two main ways in which solutions to the disposal of waste have been approached. One, the non-market solution, is usually by national or local government *fiat* i.e. there is a stated requirement that all waste has to be collected, sorted and recovered. This will be funded by a form of local community tax—as in The Netherlands or Denmark—or through the industry—as is the case with Germany. This approach deals with waste from the point of view of protecting the environment and avoiding landfill; costs, whether to the community or to industry, appear to be a secondary consideration. The second route is a market solution, where commercial decisions about how to recycle or recover waste, and what specific waste material to go for, determines the cost of recovery. The United Kingdom has chosen this route.

HOW DOES THE UNITED KINGDOM SYSTEM WORK?

6. A full and detailed account of how the United Kingdom system works is given in Appendix 4. The Government, through DEFRA and the Regulatory Agencies,² determines interim annual targets based on an assessment from the industry about the amount of potential packaging and packaging waste that will enter the market in the coming year. The interim targets are designed to guide recovery and recycling towards the targets set by the 1994 Directive. Companies which have an obligation to recycle,³ produce evidence of recovery or recycling in the form of a quasi-currency known as Packaging Recovery Notes (PRNs), or Packaging Export Recovery Notes (PERNs) which are issued by the reprocessors and bought by obligated companies and compliance scheme operators. The PRN/PERNs show the costs of achieving recovery or recycling of specific products within the year.

7. The 1994 Directive required the United Kingdom to recover, overall, between 50 and 65 per cent by weight of all packaging and packaging waste placed on the market and, within this figure, to recycle overall between 25 and 45 per cent by weight by June 2001. In addition, the Directive specified four materials—paper, glass, metals and plastic—and required a minimum recovery or recycling of these materials by weight of 15 per cent each by July 2001.

¹ Council Directive 94/62/EC of 20 December 1994 on Packaging and Packaging Waste. [1994] OJ L365/10.

² For England and Wales, the Environment Agency (EA); for Scotland, the Scottish Environment Protection Agency (SEPA); for Northern Ireland, the Environment and Heritage Service (EHS).

³ All Companies placing packaging on the market excluding those companies whose annual turnover is less than £2 million a year or who handle no more than 50 tonnes of packaging waste a year.

8. The new draft Directive⁴ is designed to raise the targets so that by June 2006 overall recovery of packaging and packaging waste by weight will be between 60 and 75 per cent, and overall recycling between 55 and 70 per cent. Instead of a single minimum for each of the four specified materials, the draft Directive sets individual targets—55 percent for paper, 60 per cent for glass, 50 per cent for metal and 20 per cent for plastics (see table 1).

Table 1: Targets set by the Directives

	Achieved by UK in 2000	Targets for 2001 set by the 1994 Directive	Targets proposed for 2006 by the new Directive
Overall Recovery	42%	50-65%	60-75%
Overall Recycling	36%	25-45%	55-70%
Recycling:			
Paper	49%	15%	55%
Glass	33%	15%	60%
Metal	30%	15%	50%
Plastic	12%	15%	20%

9. The main issues for this Report are: can the United Kingdom physically achieve the increased targets? —i.e. can it extract a sufficient tonnage of packaging waste from the national waste stream? Secondly, what are the costs to the packaging industry? We look at these issues in Parts 3, 4 and 5.

REPROCESSING AND EXPORT

10. There was conflicting evidence as to whether or not the United Kingdom had sufficient reprocessing capacity to meet the new and higher targets. Some witnesses⁵ maintained that there was sufficient United Kingdom reprocessing capacity, others believed that the amount ought to be increased.⁶ Other witnesses⁷ did not think that achieving recovery and recycling targets needed, necessarily, to be done exclusively in the United Kingdom. There appears to be reprocessing capacity available not only elsewhere in Europe, but globally. In this Report, we have not examined how markets in Europe or elsewhere might provide a means for United Kingdom industry to achieve targets by exporting waste for recycling and recovery outside the United Kingdom. It is clear, however, from the evidence we have received, that a substantial quantity of certain types of waste material is already being exported, notably paper.⁸ Nor have we, in this Report, tried to measure any benefit to the environment from removing increased quantities of packaging and packaging waste from potential landfill disposal.

11. This inquiry was carried out by Sub-Committee B (Energy, Industry and Transport) of the House of Lords Select Committee on the European Union. The Membership of the Sub-Committee is given in Appendix 1. We are grateful to the many witnesses who provided both written and oral evidence. This evidence can be found on pages 1 to 230. A list of witnesses can be found in Appendix 3; oral evidence is marked with an asterisk. The Minister gave evidence to the House of Commons on 15 May⁹ when the Commons Standing Committee considered the European Commission proposal. We regret that the Minister was unable to appear before this Committee. We are also grateful to the Committee's Specialist Adviser for this inquiry, Mr John Barton of Leeds University and Ms Emily Freer, Research Assistant, Leeds University.

⁴ 15194/01 COM(2001) 729 final – Proposal for a Directive of the European Parliament and of the Council amending Directive 94/62/EC on Packaging and Packaging Waste.

⁵ Q15.

⁶ Q203.

⁷ QQ 197 & 342.

⁸ See Appendix 5.

⁹ Parliamentary Debates, House of Commons Official Report, European Standing Committee C, Wednesday 15 May 2002.

PART 2: BACKGROUND

12. The 1994 Directive was transposed into English law by means of the Producer Responsibility Obligations (Packaging Waste) Regulations of 1997,¹⁰ and the Packaging (Essential Requirements) Regulations 1998.¹¹

13. Under the 1994 Directive the Commission was required, not less than six months before 30 June 2001, to fix targets for the succeeding five years. The current draft Directive, which is designed to do this, is, therefore, already 18 months late. Many witnesses argued that, because the Directive is 18 months behind schedule, the new target date should not be 2006, but 2008. In other words, the next five year period should start once the current draft Directive has been adopted. This, of course, would have an effect on costs. (As this Report went to press, the Committee learned that both the Council and the European Parliament's Environment, Public Health and Consumer Policy Committee had agreed that the target date be 2008.)

DEPARTMENT OF TRADE AND INDUSTRY (DTI) REGULATORY IMPACT ASSESSMENT (RIA)

14. The DTI commissioned a Regulatory Impact Assessment (RIA) to assess what effect on costs to industry the Commission's proposals might have. The RIA suggests that, while increased recovery and recycling targets for packaging waste should reduce the detrimental effects of such waste being sent to landfill, they could bring their own costs in terms of resource use. It therefore stresses the need to assess the net benefits of the proposal. On that basis, together with making various assumptions about future flows in packaging waste, how the overall recovery rate was achieved, and the effect of the proposal on the market for recycled waste, the RIA concludes that the additional costs to the United Kingdom of meeting the targets set by the Commission for 2006 would be between £458 million and £656 million. The Assessment added that these figures could be reduced to a range of £390 million to £572 million respectively if the deadline were moved to 2008 to reflect the late submission of the Commission proposal; and to a range of £402 million to £600 million respectively if the main increase in targets were to take place towards the end of the period for compliance (i.e. 2006) (See Table 2 below).

Table 2: RIA Projected Additional Costs

Estimated costs to UK industry	Graduated increase in recovery and recycling over the year period 2001-2006	Main increase in recovery and recycling in 2006	Target date postponed to 2008
Maximum	£650 million	£600 million	£572 million
Minimum	£458 million	£402 million	£390 million

THE ROLE OF THE EUROPEAN PARLIAMENT AND THE POSSIBILITY OF EVEN HIGHER TARGETS

15. The proposed Directive falls under the co-decision procedure, under which the Council and the Parliament are co-legislators. The first stage in the Parliamentary process is for the Environment, Public Health and Consumer Policy Committee (EPHCP Committee) of the European Parliament to agree the amendments and for these then to be considered by the European Parliament in plenary session. Strong differences of opinion between Parliament and the Council about the Commission's proposal could delay the eventual adoption of the proposed Directive until mid 2003. It would take a further year to transpose into English Law.

16. The Rapporteur¹² of the Parliament's EPHCP Committee, Dr Dorette Corbey, has drafted amendments to the Commission's proposal. The Rapporteur proposed to increase the targets set out in the draft Directive, so that the minimum overall recovery by weight by 2006 should be 80 per cent, and the minimum element to be recycled by weight should be 65 per cent. The Rapporteur proposed a

¹⁰ Statutory Instrument (SI) No. 648 (1997) amended by No. 1361 (1999), No. 3447 (1999), No. 3375 (England and Wales) (2000). Amended for Scotland by Scottish Statutory Instrument (SSI) No. 451 (2000). For Northern Ireland: The Producer Responsibility Obligation (NI) Order (No 1762) (1998) amended by SR No. 115 (1999) and SR No. 496 (1999).

¹¹ SI No. 1165 (1998).

¹² The Rapporteur is a Member of the relevant Committee of the European Parliament who undertakes to canvas the Committee's opinions about the draft Directive and to produce a report which the Committee would subsequently consider. Once this has happened, the Committee's proposed amendments are then put before a Plenary session of the Parliament and voted on. They represent the Parliament's amendments to the draft Directive.

simple minimum of 25 per cent by weight for each of the specified materials, rather than the variable percentages contained in the Commission's proposal.¹³

17. As this Report was in the final stages of drafting, the Committee learned that the EPHCP Committee of the European Parliament had amended the "Corbey" targets. The EPHCP Committee agreed *inter alia*:

- that the new target date should be 2008 and not 2006;
- minimum overall recycling target of 65 per cent;
- no maximum target;
- no overall recovery target;
- material-specific targets in line with the Commission's proposal.

18. At the same time, the Committee received information that the Spanish Presidency had succeeded in reaching a "common orientation" in the Environment Council on 25 June 2002 that recorded a majority agreement on the following points:

- (a) the target date for achieving the targets would now be 31 December 2008 with Greece, Ireland and Portugal given a further four years;
- (b) a maximum of 80 per cent for overall recycling but no maximum figure for overall recovery;
- (c) minima for specific materials to be:
 - ◆ paper 60 per cent;
 - ◆ glass 60 per cent;
 - ◆ metal 50 per cent;
 - ◆ plastics (recycled as plastics) 22.5 per cent; and
 - ◆ wood 15 per cent.

19. We welcome this extension of the deadline because it gives the United Kingdom packaging industry additional time to plan to meet the new targets. We note, however, that both sets of revised targets are provisional because:

- we do not know how the Parliament will ultimately respond;
- nor can we foresee whether or not the "common orientation" will become a Common Position in the Council;
- we cannot forecast the basis for an agreement between the Council and the Parliament.

We set out the current position as we believe it to be in the table below.

Table 3: Current Position of Targets for 2006 or 2008

	Commission's Targets in the Proposed Directive	The "Corbey" Targets	The Council's Revised Targets (July 2002) (see para 18)	The European Parliament's Revised Targets (July 2002) (see para 17)
Deadline for Implementation	2006	2006	2008	2008
Overall Recovery	60-75%	80%*	No Maximum	No Target
Overall Recycling	55-75%	65%*	80%**	65%*
Recycling:				
Paper	55%	25%	60%	55%
Glass	60%	25%	60%	60%
Metal	50%	25%	50%	50%
Plastic	20%	25%	22.5%	20%
Wood	—	—	15%	—

* no maximum

** maximum

¹³ On 9 July, the EPHCP Committee agreed to amend these proposals (see para 17). Nevertheless, they have still to be considered in plenary session in September 2002.

20. We must assume that, if the normal process of compromise precedes an agreed decision between the Parliament and the Council, the chances are that the final percentage figures for total recovery and recycling are likely to be no lower than those already proposed by the Commission, and could well be higher. The minimum overall recovery target of 80 per cent is likely to be largely met by recycling because the United Kingdom has so far had only limited capacity for recovering energy by burning waste packaging materials. If all the additional recovery was through recycling materials this would require an additional 2.9 million tonnes of packaging waste recycling.

COST BENEFIT ANALYSIS

21. Whereas the Commission has based its targets on a cost benefit analysis, the Rapporteur freely admitted that she had not done so¹⁴, nor had Member States provided her with information on the comparison of costs between the Commission's proposed targets and hers.¹⁵ She had, however, consulted widely and had seen the studies that supported the Commission's proposals. She had also had sight of the United Kingdom's Regulatory Impact Assessment (RIA).¹⁶ Dr Corbey added that, higher figures i.e. targets, did not necessarily lead to higher cost.¹⁷ She argued that "the focus of the packaging policy is on recycling targets, and it gives the impression that recycling targets are an end in themselves." Dr Corbey's view was that:

"the true aim of the packaging Directive is to minimise the environmental damage of packaging. I think we should work much more on prevention issues."¹⁸

CONCERN ABOUT POSSIBLE DELAY IN ADOPTING THE DRAFT DIRECTIVE

22. The Committee has some sympathy with Dr Corbey's holistic approach but noted that the prevention strategy issues had been foreseen in the 1994 Directive and are to be addressed in a subsequent revision of the Directive. The Committee also noted that, these "other issues" had been explicitly excluded from the scope of the present proposal which focuses only on recovery and recycling targets. The Committee hopes that the European Parliament will not attempt to introduce such issues at this stage of the review process because this would delay agreement between the Council and the Parliament. From the point of view of United Kingdom industry it is important not to lose momentum. **We recommend that the Government continue to press for the early adoption of this Directive.**

23. The Committee was concerned that, not only were the European Parliament's proposed amendments to the Commission's targets higher, but the Parliament had not indicated maxima for either recovery or recycling. This suggested that the Parliament's objective was to drive up the amount of packaging and packaging waste recovered and recycled, regardless of whether or not this was a cost-effective solution to the problem or even of real environmental benefit. In other EU Member States, such as Austria, Germany, Belgium and the Scandinavian countries, where a culture of sustainable development operates, the costs are several orders of magnitude greater than those incurred hitherto in the United Kingdom (see Appendix 6 which shows the costs for German packaging industry in 2001). It is difficult to see how wider cultural change in United Kingdom society can be brought about by sudden exponential increases in the cost of recovery and recycling of packaging and packaging waste over a brief period. Indeed, as the Commission has argued,¹⁹ there are grounds to support the view that the highest levels of recovery and recycling are detrimental in terms of both cost and environmental considerations.

EUROPEAN PARLIAMENT AMENDMENTS TO EC LEGISLATION

24. The Committee was disturbed to learn that a substantial series of amendments to EC legislation that carried considerable financial and economic consequences for Member States could be put forward without them being supported by extensive independent cost-benefit analysis and environmental impact assessments.²⁰ **The Committee urges the Government to consider what possible remedies might be appropriate, and how they might be achieved.**

¹⁴ QQ 554 & 555

¹⁵ Q561

¹⁶ Q554

¹⁷ QQ 557, 558, 560

¹⁸ Q549

¹⁹ QQ 522, 530, 531

²⁰ QQ 564, 565, 566

EUROPEAN ECONOMIC AND SOCIAL COMMITTEE (ECOSOC)

25. ECOSOC has adopted an opinion on the draft Directive.²¹

26. ECOSOC did not disagree with the methodology embodied in the draft Directive but noted that other aspects of the 1994 Directive, “such as prevention, re-use and further work on transferring the environmental impact costs of packaging into the product cost will need to be considered urgently in the near future.” ECOSOC had already contributed to this forth-coming debate in its Own-Initiative Opinion on the *Development of outlets for food and non-food packaging waste* adopted in December 1999.

27. ECOSOC noted that the revised targets were lower than originally proposed, but that the new targets had been set following extensive consultation. The Committee analysed the RDC/PIRA 2001 report²² on which the Commission had based its calculations when setting the new targets. It concluded that the proposed targets had been set with particular reference to those Member States with low recycling rates, that the targets might be demanding “but, in the view of the Committee, achievable through pro-active, concerted effort.”

²¹ At its 391st plenary session of 29-30 May 2002 (meeting on 29 May)—EESC CES681/2002 ISSN 1015-9487.

²² A Report compiled by RDC Environment and PIRA International: RDC/PIRA 2001 for the European Commission (draft final report): *Evaluation of costs and benefits for the achievement of reuse and recycling targets for the different packaging materials in the frame of the Packaging and Packaging Waste Directive 94/62/EC*.

PART 3: UNITED KINGDOM PERFORMANCE IN MEETING 2001 TARGETS

28. In Part 3 we consider the growth in packaging recovery and recycling over the period 1997 to 2001, where this growth has occurred (by material and source), and how and where it has been reprocessed. We do so in the light of how the United Kingdom system is designed to stimulate growth through the PRN mechanism.

OVERALL RECOVERY

29. The overall target for recycling (25 per cent) was met (43 per cent), as were the minimum 15 per cent recycling levels for individual materials. However the United Kingdom fell just below the 50 per cent overall recovery target, achieving 48 per cent. Data to this effect was released by DEFRA on May 23rd 2002.²³ Packaging recovery increased by 1.46 million tonnes from an estimated level of 3 million tonnes to 4.46 million tonnes. This was 200,000 tonnes below the Directive target (4.65 m tonnes).

DATA QUALITY

30. Before 1997 there was no need for collectors or reprocessors separately to identify waste materials as packaging or non-packaging. Figures for 1997 are, therefore, not considered very reliable, and only the total amount has been estimated for that year. A breakdown of the total by material type is available from 1998 onwards.

31. There is also uncertainty about counting tonnages processed in one year and brought forward to the next.²⁴ Some witnesses²⁵ suggest that the reprocessors may have included non-packaging recovery and recycling in their returns. There is, however, no proof that this was a substantial problem in 2001.

32. In spite of these uncertainties, we accept that substantial net additional recovery was achieved between 1997 and 2001, but possibly less than the 1.46 million tonnes reported by DEFRA. The figures for growth from 1998 to 2001—1.1 million tonnes—are more reliable.

THE WORKING OF THE PRN/PERN MARKET SYSTEM: 1997 TO 2001

33. The overall price level for PRNs has responded to the interim recycling and recovery levels set by DEFRA each year. When interim levels have been perceived to be challenging and difficult, prices have risen. When it has become apparent that the annual targets will be met, prices have fallen occasionally, at year-end, to very low levels.

34. Prices for material-specific PRNs have also responded to the minimum recycling levels set. Recycling levels for plastics have been lower than the minima of the interim targets set by DEFRA resulting in PRN prices for plastics being consistently higher than for other materials.

35. One problem, based on evidence received,²⁶ has been with the interim target setting by DEFRA. With hindsight, interim targets set in the early years led to a “slack market”. Following an initial surge in PRN prices in 1998, the first year the PRN system was operational, prices fell back sharply in 1999 and 2000 as experience demonstrated that recovery and processing capacities could and were able to generate PRN/PERNs in excess of interim target demand.

36. The market position changed in 2001. The interim targets set during 1999 and 2000 had left a considerable gap to be bridged in the final year. Moreover, the proportion of packaging handled by non-obligated businesses (i.e. those businesses that are not obliged to meet recovery and recycling targets²⁷) was known to be significantly more than the 5 per cent originally expected. This led to an increase in percentage target levels on United Kingdom obligated business (i.e. those companies that were obliged by the Regulations to recover and recycle packaging and packaging waste)—in effect, the United Kingdom recovery target increased from 52 per cent to 56 per cent.

37. PRN/PERN prices responded accordingly and rapid progress in collection growth occurred. Much of the growth tonnage however was exported rather than processed within the United Kingdom.

²³ See supplementary evidence from DEFRA, pp 159–171.

²⁴ See the further memorandum from Wastepack, pp 94–95.

²⁵ See written evidence from Timcon, pp 231–235; and Biffpack p48, paras 8 & 9.

²⁶ QQ 4, 15, 19, & 383.

²⁷ Companies whose turnover is less than two million pounds a year, or who put fewer than 50 tonnes of packaging on the market each year are exempted from the obligation to meet existing targets under the 1994 Directive. This is known as the *de minimis* rule.

38. A major compliance scheme operator adopted a route to compliance in 2001 that did not rely solely on PRN purchase (see Box 1). It is argued that had they been active in the market, PRN prices would have risen and pulled through the additional tonnage needed.

Box 1

Wastepack Ltd

On 15 April 2002 the Environment Minister, The Rt Hon Michael Meacher MP, expressed concern that the United Kingdom's second largest compliance operator had failed to meet its recovery and recycling obligations in 2001. The Regulatory Agency, the Scottish Environment Protection Agency (SEPA), announced that they were issuing a formal warning notice.

According to DEFRA's news release, Wastepack had been required to carry out recovery of 415,000 tonnes of packaging waste—the total of its members' obligations—and to demonstrate compliance with this obligation to SEPA. It discharged only 175,000 tonnes of its recovery obligation, leaving a shortfall of 240,000 tonnes.

Wastepack said that its compliance plan for 2001, which had been lodged with SEPA at the end of 2000, did not envisage meeting its compliance obligations exclusively through the provision of PRN/PERNs.

Wastepack's evidence and SEPA's evidence can be found on pages 81–103.

The Committee did not seek to judge compliance. Our concern was to see where responsibility for compliance lay, given that regulation is a devolved matter. The United Kingdom Government is held accountable by the European Commission. It was not clear to the Committee how or to what extent the devolved Regulatory Agencies were accountable to the United Kingdom Government (see para 113).

39. Further concerns about the United Kingdom system during this period have been expressed by the packaging industry²⁸ and witnesses from other sectors. In the main they relate to administrative burdens on industry, inspection and policing of the system, data coverage and quality, data handling and timely release.

40. The United Kingdom system is a market-based system and markets need timely information to work effectively. Many of the above problems to which witnesses have drawn our attention can be attributed to the relative novelty of the system and the poor state of the data collection system. Most have been recognised by the regulatory agencies and DEFRA.²⁹

THE SIGNIFICANCE OF SPECIFIC MATERIALS TO OVERALL GROWTH

41. Evidence concerning the sources of these materials indicates that, apart from glass and to a lesser extent metals, past levels of waste recycling and new growth in collection have come from industrial and commercial waste flows. Wood packaging waste is dominated by old pallets and crates, packaging paper by cardboard boxes, plastics packaging by shrink wrap, crates and pallets. Although post-consumer cans (steel and aluminium) recovery is progressing, the majority of steel packaging waste is also from commercial sources (larger drums and strapping for bales and pallets).

²⁸ Q 4; written evidence from Biffpack, p 49, para 11; Q 240; written evidence from INCPEN, pp 16–17.

²⁹ See the Environment Agency's supplementary memorandum, p 113, para 3.7.

42. The information needed to assess past growth is given in table 4 below:

Table 4: Packaging Recycled 1998-2001

(thousands of tonnes)

Packaging material	1998	1999	2000 ¹	2001 ¹	Growth 1998-2001
Paper	1894.1	1820.7	1880.4	2030.9	136.8
Glass	504.0	582.6	715.0	735.6	231.6
Aluminium ²	14.5	15.4	16.3	29.0	14.5
Steel ³	182.4	225.2	238.7	278.1	95.7
Plastic	125.5	198.5	204.4	270.0	144.5
Wood ⁴	170.0 ⁴	94.0 ⁴	296.4	574.0	444.0 ⁴
Total	2890.5	2936.4	3351.2	3917.6	1067.1

¹ Includes NI after 2000

² Aluminium protocol introduced 2001

³ Steel protocol introduced 1999

⁴ Wood data uncertain, 98-01 growth based on ~130kt (the average for 98/99)

Source: DEFRA's supplementary evidence³⁰ (minus energy from waste figures).

43. Over 40 per cent of the measured growth in packaging recycling has been contributed by wood packaging. DEFRA estimate ~ 130,000 tonnes was recycled pre-1998, and that 574,000 tonnes was recycled in 2001, an increase of ~440,000 tonnes. This can be compared with estimates of ~ 230,000 tonnes additional glass recovery, and paper and plastic increases of ~ 140,000 tonnes and ~110,000 tonnes for metal packaging (mainly steel).

44. New United Kingdom reprocessing activity can be assessed from the number of accredited reprocessors in the various sectors. In 1998, no accredited reprocessors existed for wood, by 2001, 31 were registered. In the same period, glass has seen an increase from 18 to 36, plastics from 72 to 92. No significant change has been noted for paper, steel or aluminium. Overall the number of United Kingdom accredited reprocessors rose from 190 to 266 with 29 of the new registrations in 2001. We received evidence of investment in new United Kingdom glass reprocessing capacity, and plastics.³¹ Glass has developed new processes and markets, for example "Glassphalt" for road surfacing.³² Progress has also been made in sorting and reprocessing capacity for post-consumer can collection and sorting systems³³. No specific evidence for industry support for increased packaging or paper-making capacity suited to making use of paper packaging was received. Most of the growth in collection during the period 1998-2001 has been exported.

THE SIGNIFICANCE OF EXPORTS OF UNPROCESSED PACKAGING WASTE

45. Data from DEFRA indicates that 460,000 tonnes of packaging waste was exported in 2001, a four-fold rise from 1998 when the total was estimated to be ~ 115,000 tonnes. Major increases were due to additional export of paper packaging (~179,000 tonnes), plastics (~ 56,000 tonnes) and metals (~ 105,000 tonnes). Conversely, export of glass fell over the period by ~30,000 tonnes (although increases on 1998 levels occurred in 1999 and 2000). No wood packaging was exported during this period.

46. This suggests that little additional waste packaging reprocessing capacity in the United Kingdom has been created for paper and steel in 2001 compared to 1998 and possibly less reprocessing of it. Growth in United Kingdom reprocessing of plastics is also significantly lower than collection growth. Only wood and glass have seen collection growth matched or exceeded by reprocessing within the United Kingdom.

³⁰ See pp 159-187.

³¹ Q 15; Q 200; Q 219; Q 453; and supplementary evidence from DEFRA, p 164.

³² Q 213.

³³ See written evidence from Alupro, pp 203-204 and from Corus, pp 208-210.

47. The figures for steel and paper does not necessarily mean that the collected packaging could not have been reprocessed in the United Kingdom, it may simply be the case that it was more cost effective to rely on overseas reprocessing capacity.

48. In order to be able to assess what the finance raised by industry through the PRN system has delivered, and the future security of markets for reprocessing United Kingdom packaging waste, we need to differentiate between packaging processed in the United Kingdom compared to exported flows.

49. United Kingdom registrations can be compared with the number of accredited exporters. Over the same period the number rose from 4 to 64. Thirty two of the new registrations occurred in 2001. Registrations by material are consistent with the rise in export volumes. Steel rose from 2 to 13, plastics from 1 to 30, paper from 0 to 13 and aluminium 0 to 6. Accredited glass exporters, in contrast, only rose from 1 to 2.

POSSIBLE DISTORTION OF THE MARKET

50. Increased recycling will, in many cases, distort existing markets. Evidence from Timcon,³⁴ for example, suggests that wood packaging is now the major source of wood chips in the production of processed board products (i.e. chipboard) The wood packaging waste has replaced by-products and waste from the (non-packaging) timber industry. Timcon claims that the PRN revenues for packaging wood waste have affected the viability of the timber industry as it can no longer sell timber waste. Investment (storage, chipping and handling systems) will have been necessary to accommodate this change but is unlikely to be major given the rapidity of the switch-over from timber waste to packaging wood waste. PRN revenues for wood only became available in 2000.

51. It is clear that simple extrapolation from past growth in terms of overall packaging collected and reprocessed does not provide a sound basis for meeting future targets, and we return to this point in Part 4.

³⁴ See evidence from Timcon, pp 231–235.

PART 4: COSTS OF MEETING THE 2001 TARGETS

52. In Part 4 we examine the costs over the period 1998-2001 concentrating on the marginal costs associated with the collection and recycling of specific packaging materials.

53. This is because the growth required to meet future targets will be met by recycling rather than recovery and the current balance between materials and sources will change. Ample evidence³⁵ has been submitted to conclude that the overall cost to industry during the first phase of targets has been low compared to those incurred by other Member States and lower than the Government originally estimated when the United Kingdom packaging regulations were introduced.³⁶

54. However, as seen in Part 3, the actual growth and the nature of this growth is important in order for us to determine what has been achieved so far and what the likely financial demands to meet future targets will be.

DEFINITION OF COSTS

55. There are five main areas which generate costs in what economists call the value chain for wastes:

- (i) collecting;
- (ii) sorting;
- (iii) transport;
- (iv) physical process—recovery or recycling; and
- (v) administrative costs.

56. Waste from industrial and commercial sources contains large quantities of the additional packaging used to transport and protect products from the first producer through the supply chain to the retailer, such as crates, pallets, cardboard boxes and plastic shrink wrap. This is tertiary (transit packaging) or secondary (grouped sales) packaging. Packaging materials also appear in the general household waste, but mainly as smaller packaging items wrapping the individual product sold. This is primary or sales packaging. Secondary packaging occurs in both sectors, for example depending on whether wine is bought by the bottle or by the case. Apart from glass, the United Kingdom system, so far, has sourced most of its material (tertiary and secondary packaging) from industrial and commercial waste which is relatively cheap because collecting and sorting has been simplified—having been centred on a supermarket, for example. Clearly, an attempt to extract mainly primary packaging material—whether paper, aluminium, metals, plastic, or glass—from the household waste, is more difficult, and therefore can be expected to be very much more expensive.

57. The cheaper costs of collecting and sorting commercial and industrial packaging has helped reduce the subsidy required to support recycling. However, collecting and sorting waste packaging from the household waste stream will have significantly higher costs as noted above, and the reprocessing industry will require much higher financial support to achieve increased recycling from this source. This means that the PRN will become more expensive. Box 2 below demonstrates how this works in principle and at the simplest level.

³⁵ QQ 3, 24, 25, 364; and written evidence from: Corus, p 209, para 2(a); Biffpack, p 50, para 17; EA, p 104; LARAC, p 32, para 5; Food and Drink Federation, pp 216–217; Unilever, p 114; Tesco, p 230, para 2.5; and St. Regis, p 229, para 2.

³⁶ Q 452.

Box 2*What affects the PRN/PERN Price*

View of a “waste holder” (Local Authority or Business)

Costs

A) Cost of collecting and sorting, and delivery of segregated packaging to reprocessor	Say £110 per tonne
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Revenues

B) Avoided disposal of packaging material	Say £50 per tonne
C) Market value (price paid) of packaging material for sale to reprocessor	Say £20 per tonne
Revenue Total	£70 per tonne
D) Net loss to “waste holder”	£40 per tonne

To cover D) revenue needs to come from the PRN system—i.e. the subsidy for activity which is otherwise uneconomic.

A number of actions (or combination of actions) can be taken, for example:

- pay capital cost of the system A)—thus reducing the operational costs;
- subsidise the price paid C);
- invest in technology, develop new markets for recycled material to increase demand, hence the value of packaging waste and price C);

The decision is in the hands of industry, primarily the reprocessors in collaboration with obligated businesses, on what mixture of support measures is needed for any given material.

Other factors can affect A), B) and C) and hence the deficit D) the PRN revenues need to cover. For example:

- costs of A) may change as economies of scale and improvements in sorting technology develop;
- costs of B) may change due to increases in the tax levy on landfill or mandatory targets;

the price of C) is affected by global supply and demand factors in markets for specific recycled materials.

58. The United Kingdom system works on the basis of shared costs. The table below gives the breakdown of costs by percentage to each element in the value chain. While this may be a fair allocation of costs, some witnesses question whether it is the most efficient way to address the problem.³⁷

Table 5: Allocation of Shared Responsibility

Raw material manufacturer	6 per cent
Converting operation	9 per cent
Packer/Filler	37 per cent
Retailer	48 per cent

COSTS AND SMALL AND MEDIUM SIZE ENTERPRISES (SMEs)

59. There are, in practice, two forms of cost involved. One is the subsidy needed to ensure that materials are recovered and recycled (para 55 (i)-(iv)). This function is performed by the PRN/PERN.

³⁷ Q 240.

The second cost is the administrative cost (para 55 (v)). This comprises the cost of registration and the costs that arise from the need to keep detailed records to track packaging from the point when it is first put on the market through to the retailer. The United Kingdom compliance system is complex, and administrative costs are a very high proportion of the costs to industry in running the United Kingdom system. In relative terms, the United Kingdom system has so far been low cost. Administration is a major concealed cost that would bear most strongly on smaller companies. It was estimated that exempting smaller companies would cover 5 per cent of packaging. In practice, witnesses suggest the real figure is at least 10 per cent.³⁸ This exemption of smaller companies imposes additional obligations on the companies covered by the Directive. **We think the system should be simplified and urge the Government to consider how this might be achieved. We also urge the Government to consider how, through simplifying the administration of the system, especially for small and medium sized enterprises, the obligation could be extended to include all companies placing packaging on the market.**

60. When we look at the United Kingdom performance under the 1994 Directive, it is important to note that, although the United Kingdom has the lowest costs in the EU, the United Kingdom system has only been operated to achieve the minimum amount of recovery and recycling consistent with the targets. The performance to date has been relatively easy in terms of cost because the United Kingdom's obligations have been met mainly from industrial and commercially sourced waste. Sourcing materials from the household waste stream will be more expensive.

ISSUES AFFECTING COST DATA

61. The Committee has received various and conflicting evidence about the cost effectiveness of the PRN/PERN system. As well as interpretation of cost and recovery data, there are methodological differences in the way costs per tonne are expressed.

62. PRN/PERN revenues which reside with accredited reprocessors and exporters are not the only method the United Kingdom system can use to raise funds to stimulate recovery. Individual companies and compliance schemes can invest monies raised outside the PRN/PERN system by means of levies on member companies. The Committee has confined its assessment to the PRN/PERN revenue and reports from the accredited reprocessors to the Environment Agency on how it has been spent. This information is presented in supplementary evidence from DEFRA and had not been publicly released before the inquiry began in May.

63. In considering PRN/PERN revenue, ideally the amount raised over the period 1998-2001 would have produced the finance the market required to stimulate additional recovery levels—i.e. beyond what was economically viable before the system was introduced. This amount also accommodates factors that may increase or decrease the baseline recovery levels. These are numerous and unquantified but it is quite conceivable that PRN revenue has had to support activity that, in the past, (e.g. in the case of paper) was economic but now requires subsidising to maintain recovery levels.

MARGINAL COSTS

64. "Marginal Cost" in this context refers to the extra financial support (subsidy) needed to achieve a 1 per cent increase in recycling. "Marginal Cost" may be used in relation to the overall level of recycling or to individual packaging materials. Evidence to the Committee suggested that marginal costs (financial support) would rise steeply as the United Kingdom achieved the higher targets to be set under the proposed directive. This was partly because the source of packaging material for recycling will move into the household waste stream.

65. It seems likely also that marginal costs (financial support) will vary considerably between individual packaging materials. If the higher minimum targets are set for individual materials, this will impact on the amount of financial support needed through the PRN/PERN system.

66. Appendix 5 demonstrates PRN/PERN revenues and growth in packaging recycling for the period 1998-2001 and shows estimates of marginal cost of PRN/PERN support for this period.

SUMMARY ON COST OF DELIVERING 2001 TARGETS

67. The overall "cheapness" of the system to date is due in large measure to the substantial contribution made by recycling wood and paper packaging, both of which required relatively low amounts of subsidy through the PRN system. The export of paper packaging for recycling was the third major contribution to the United Kingdom's recycling achievement—again, with little financial

³⁸ See written evidence from INCPEN, p 16.

support through the PERN system. The recovery of wood packaging had received scant attention in the original appraisal and development of the United Kingdom system and in calculating the original Regulatory Impact Assessment. Had this growth in packaging wood recovery not occurred, it is doubtful that compliance with the targets in the 1994 Directive would have been possible without a substantial increase in PRN/PERN values for all the other materials, perhaps doubling the compliance costs incurred by obligated businesses.

68. Part of the uncertainty about how well the United Kingdom is meeting targets arises from a lack of transparency in the data and from the tendency of the system to delay comprehensive information about tonnages and costs until the end of each annual accounting period. **The Committee agrees with the views of many witnesses that greater transparency and timeliness in the provision of data by all parties is needed to sustain confidence in the system. The Committee, therefore, recommends that data should be required to be submitted on a quarterly basis and that the regulatory agencies should issue quarterly statements of account.**

PART 5: DELIVERING THE 2006 TARGETS

69. This part of the Report examines the feasibility and costs of meeting the targets proposed by the Commission. We also consider the revised targets proposed by the European Parliament Rapporteur, Dr Corbey. This section relies heavily on witnesses' views of the projections by DTI and DEFRA in the original Regulatory Impact Assessment.

70. Given the uncertainty that still remains over the final outcome of an agreement between the Council and the Parliament (para 19), we have not attempted to assess what the timing or revised targets portend. We have, therefore, based our examination of both timing and revised targets on those put forward in the draft Directive. We draw attention to the vastly increased costs that would burden the United Kingdom packaging industry if the amendments to the Commission's targets proposed by the European Parliament Rapporteur were to be imposed.

ADDITIONAL QUANTITIES OF RECOVERED/RECYCLED MATERIALS NEEDED TO MEET 2006 TARGETS

71. In 2001, the United Kingdom recycled 3.92 million tonnes of packaging material, 3.34 million tonnes excluding wood. Overall recovery was 4.46 million tonnes. Most of the difference of 0.52 million tonnes was contributed by energy from waste or equivalent sources.

72. The overall **recovery** target for 2006 (which includes energy from waste) is 60 per cent. At the projected (2006) level this would require 5.75 million tonnes to be recovered. The increase on 2001 recovery to meet this target is ~1.32 million tonnes, an increase of 30 per cent on current levels.

73. The overall **recycling** target for 2006 is 55 per cent. The United Kingdom will have to recycle ~5.27 million tonnes, approximately 1.36 million tonnes more than in 2001, an increase of 35 per cent. Because the recycling targets in tonnes is very high in relation to the overall recovery targets (5.27 million tonnes out of 5.75 million tonnes) the United Kingdom needs to recover the difference (0.48 million tonnes) by either additional recycling or by other means such as energy from waste. It appears unlikely, therefore, that energy from waste activity would attract any significant financial support through the PRN system.

MATERIAL-SPECIFIC TARGETS

74. The Advisory Council on Packaging (ACP)³⁹ data and the Commission's original differential material-specific targets suggest that the minimum additional tonnage to be recycled and the percentage increase compared to 2001 levels will be as follows:

- Paper, ~ 18,000 tonnes = + 4%
- Glass, ~ 579,000 tonnes = + 79%
- Steel ~ 57,000 tonnes = + 20%
- Aluminium ~ 32,000 tonnes = + 110%
- Plastics ~ 122,000 tonnes = + 45%

Total = 810,000 tonnes

However, the overall minimum recycling target of 55 per cent requires an additional 1,360,000 tonnes to be recycled. This leaves a gap between the material-specific and overall recycling target of some 550,000 tonnes. This additional recycling can be resourced from any packaging material, including wood, but the above materials will have to contribute.

SOURCES OF MATERIALS

75. The ACP identified that commercial and industrial sources account for 45 per cent of the total packaging waste flows.

76. Taking into account existing recovery, 4.5 million tonnes of the residual packaging available to meet future targets is in the household waste stream and 1.8 million tonnes in industrial and commercial flows of which 0.6 million is wood packaging.

77. The United Kingdom's largest compliance scheme operator, which accounts for around 70 per cent of the national recovery obligation, claimed in their evidence⁴⁰ that the ACP might have underestimated the potential packaging left in commercial and industrial sources.

³⁹ Report of the Task Force of the Advisory Committee on Packaging—DEFRA (November 2001).

⁴⁰ Q 6.

78. Household packaging is generally more difficult and costly to collect, sort and process than larger industrial and commercial flows. Additional capital investment in household collection systems and cleaning and sorting plant will be needed.

79. Moreover, the condition of collected household packaging wastes is often inferior to industrially sourced waste and improved cleaning and refining processes have to be adopted by the reprocessing industry to meet traditional end-user quality requirements. This increases process losses and costs.

FEASIBILITY AND COSTS OF MEETING THE TARGETS

80. Despite the concerns expressed about United Kingdom performance to date, the consensus of evidence is that the United Kingdom can meet the Commission's 60 per cent overall recovery target. This view is strongly supported by the Government, the regulatory agencies, most compliance schemes and industries representing the material reprocessors. With an extension of the deadline to 2008, few consider there to be a significant problem.

81. For the material-specific targets, deeper concern has been expressed in relation to glass and metals and there is concern about reaching the overall recycling minimum of 55 per cent within the 2006 deadline. The slow rate of progress made by the local authority sector in introducing high recovery kerbside collection systems and associated sorting plant is the main problem in collecting the packaging materials from household waste. There is, moreover, a mismatch between local authority recycling targets which are non-specific in terms of materials or products and the targets set for the packaging industry.

PACKAGING WASTE FROM THE LOCAL AUTHORITY SECTOR

82. Evidence from local authorities (Local Authority Recycling Advisory Committee (LARAC)/Local Government Association (LGA)) and the Institute of Wastes Management (IWM) suggests that progress in the required collection infrastructure is likely to achieve the necessary levels by 2006 to enable them to meet their own targets⁴¹. Local authority targets for household waste are, however, weight-based and newspaper, glass and composting the organic components in the waste represent the easiest route to meeting their obligations. Collection of anything else (e.g. aluminium, plastic and waste paper other than newsprint) would depend on the incentives offered to do so.

ISSUES AFFECTING SPECIFIC MATERIALS

83. Evidence from witnesses indicate that recycling costs are likely to escalate sharply in some sectors particularly in glass, steel and aluminium. Paper, which has exceeded the revised targets already, will see costs rise because it will have to make up the gap between the 55 per cent overall target and the material-specific targets. Several United Kingdom materials organisations, notably those representing the glass and aluminium industries, have expressed their concern about the effects of different targets for different sectors: "we are vehemently opposed to the proposed differential targets"⁴².

84. Some of the problems that affect specific materials are:

- glass—in the United Kingdom most new glass produced is clear glass. Recovered glass is dominated by the imports of green and brown wine and beer bottles. This issue has been recognised by the Commission and there have been suggestions that the position could be reviewed subsequent to agreement on the Directive;
- steel—no significant reprocessing or market problems are reported;
- aluminium—compared to steel, the situation for aluminium is potentially more difficult. Around 40 per cent of aluminium packaging is in the form of foil. This is more difficult to collect and sort;
- paper—the target for paper does not require significant extra recovery. However, it is estimated that over 0.4 million tonnes of paper remains in the commercial and industrial sectors. In the household waste up to one half of this is board packaging rather than paper and could be targeted with relatively modest incentives to do so by local authorities. Paper could thus provide a cost effective route to meeting part of the additional tonnage required to meet the higher overall recycling target;

⁴¹ Waste Strategy 2000

⁴² Written evidence from Alupro, p 203.

- other materials—the evidence suggests that additional plastic waste to meet the Commission’s target of 20 per cent can be collected from industrial and commercial sources. But, if plastic has to exceed this figure, we would expect this to be difficult beyond a figure of 25 per cent;
- very little is known about the amount of wood available for reprocessing, or whether we have the capacity to reprocess it. Nor can we be sure how the available supply of wood for reprocessing can be distinguished as packaging waste under the regulations.

THE VIEWS OF WITNESSES ON THE EXISTING SYSTEM AND ITS ABILITY TO DELIVER FUTURE TARGETS

85. The Committee received extensive comment from witnesses on whether the existing structure of the United Kingdom system was appropriate for delivering future targets. These are summarised below:

- an additional “administrative” issue is the shared cost approach adopted in the Regulations (para 58). Some witnesses suggest that a single point obligation (usually on the manufacturer who first places the packaging on the market) might be more appropriate. The Committee has some sympathy with this view.⁴³ However, introducing significant change to the United Kingdom system would be disruptive, but the extension of the target date to 2008 could provide an opportunity for industry and the Government to review this issue;
- major capital investment may be needed to increase recycling capacity. The PRN/PERN system permits reprocessors and the obligated businesses to choose how the revenues are used to stimulate change to the reprocessing infrastructure. The Committee noted, however, that a substantial amount of packaging waste was exported in the period 1998–2001. The Committee has not addressed the merits of exporting packaging waste rather than recycling it in the United Kingdom;
- witnesses argued that there was a need for PRN/PERN revenues to support the future infrastructure needed in the United Kingdom to collect, sort and deliver packaging waste to a reprocessor. This is an area where it is recognised that there is a need for co-operation between obligated companies and local authorities. The local authorities have targets for recovery and recycling set by the Government in its *Waste Strategy 2000*. Their priorities in taking material from domestic waste are not the same as those for the packaging industry.

PREDICTING COMPLIANCE COSTS ON INDUSTRY

86. Irrespective of the problems of calculating the total costs of meeting targets, the proportion of that cost falling on obligated companies will depend on additional factors which are not readily predictable. Costs can be seen as a combination of PRN/PERN values (prices) set against fluctuating markets for recycled materials. However, the Committee has received many views on whether the cost predictions in the original RIA⁴⁴ are a reasonable estimate.

THE REGULATORY IMPACT ASSESSMENT (RIA)

87. The RIA was published in January 2002 and used as part of the DTI/DEFRA consultation paper on the proposed Directive in March. It presents predictions of additional compliance costs for each year and the total from 2002 to the target date. The RIA states the assumptions on which it bases its predictions and the analysis uses the work done by the ACP task force on predicting flows and materials to be recycled and recovered over the period.

88. To meet the Commission’s proposals, the RIA predicted the additional annual cost in 2006 to be between £186 and £250 million and the total additional cost over the 5 years to be between £534 and £761 million. (These costs are not discounted.) Given the Minister’s estimate of the annual cost in 2001 of £70 million,⁴⁵ the RIA prediction is equal to an annual cost in 2006 of £256 million to £320 million.

INDUSTRY VIEWS ON RIA COSTS

89. Overall, most of the evidence presented by the industry suggested that the RIA underestimated compliance costs for meeting the Commission’s 2006 targets. Witnesses, who assumed that the

⁴³ See evidence from Timcon, p 234; Wastewatch, p 237, para 7; and the Packaging Federation, QQ 240-241, 243 & 251.

⁴⁴ Partial Regulatory Impact Assessment (RIA) on Consultation Paper on the Proposed Directive of the European Parliament and of the Council to amend Directive 94/62/EC on Packaging and Packaging Waste. Annex 1 of the Consultation Paper issued by DTI in March 2002.

⁴⁵ House of Commons Hansard, European Standing Committee C, 15 May 2002, Col 4.

market-based PRN/PERN system would be improved to work more effectively than hitherto, could be faced with annual costs in 2006 of up to double the RIA estimates. This view is based on the historic experience of costs in those Member States that meet or are close to achieving the targets. Unilever presented a detailed and convincingly argued case, both in oral session and in written evidence.⁴⁶ They conclude:

“...It is our view, based upon our international experience and on studies we have conducted, that costs in the United Kingdom could reach £500 million per annum to achieve the targets.”⁴⁷

Some witnesses are more sceptical and doubt that the targets will be met and believe that costs could escalate to more alarming levels as United Kingdom industry has to pay more in order to recover the higher levels of waste. This was the problem experienced by the DSD system in Germany in the early 1990s when high targets for recovery were imposed over a very short timescale.

REVISED RIA COST DATA

90. The Committee found the initial evidence from DTI/DEFRA difficult to understand in terms of how their projected costs had been estimated. Following the oral session with officials, supplementary evidence from DTI/DEFRA provided additional clarification. This clarification includes tables that are based on the RIA additional cost assessment but now give the total annual cost industry can expect to pay through the PRN/PERN system. The Committee has attempted to establish annual costs on the basis provided by this evidence.⁴⁸

91. The difference in official estimates of annual costs is £23–£25 million i.e. less than 10 per cent. It will be noted that DTI/DEFRA now estimate that annual costs will rise from £70 million in 2001 to £256–£320 million in 2006, a rise of four or five fold. One industry estimate (by Unilever) is for the annual cost in 2006 to rise to £500 million—a seven-fold increase. By 2006, the recycling of packaging waste will be equivalent to approximately £12–£15 per household (DTI/DEFRA) or approximately £21 per household (Unilever). These figures compare with the present cost of disposing of all household waste which is the range of £50–£70 per household.⁴⁹ Table 6 presents the 2006 costs for these two sets of data and compares them with that submitted by Unilever.

Table 6: Comparison of RIA, DTI/DEFRA and Unilever total cost estimates for 2006.

	Annual cost in 2006	Accumulated costs, 2002-2006
RIA Cost (plus the 2001 annual figure of £70 million)	£256 million to £320 million	£884 million to £1,150 million
New DTI/DEFRA cost	£281m to £343m	£1,006m to £1,233m
Unilever	£500 million	

92. The Committee cannot make a definitive judgement as to whether the new DTI/DEFRA figures for costs or the higher industry estimates are more likely. We are concerned that the differences are still large. While uncertainties about past performance and data available at the time of the assessment appear to be significant factors, assessing future costs that are subject to market forces, over a long period, is inherently difficult.

COMPLIANCE COSTS FOR THE “CORBEY” AMENDMENTS

93. Table 7 is based on annual costs presented by DTI in June to the Committee and compares the costs for meeting the “Corbey” proposals with the Commission’s proposals. Increasing the recovery target from 60 per cent to 80 per cent leads to a three to fourfold increase in annual compliance costs by 2006.

⁴⁶ pp 114–137.

⁴⁷ Written evidence from Unilever, p 114.

⁴⁸ See supplementary evidence from DEFRA, pp 159–187.

⁴⁹ Based on 24 million households—UK 2002, Official Handbook, Office of National Statistics, page 109.

Table 7: DTI/DEFRA Cost Estimates for Meeting the Commission and “Corbey” targets

	Annual cost in 2006	Accumulated costs, 2002-2006
Commission’s targets	£281m to £343m	£1,006m to £1,233m
“Corbey” targets	£1,159m to £1,391m	£2,322m to £2,793 m

94. The effect of extending the target date for the “Corbey” proposals to 2008 reduces costs up to 2006 but by 2008, annual costs are estimated at between £1,256 and £1,529 million. Cumulative costs for the period from 2002 to 2008 would be between £3,418 and £4,373 million.

95. Industry witnesses did not have these estimates available when presenting evidence to the inquiry but this data confirms their general view that the “Corbey” targets would place much higher cost burdens on industry than the Commission’s proposals.

96. A 65 per cent minimum recycling target will be difficult but without the constraints imposed by having, at the same time, to conform to material-specific minima, the target would be potentially more cost effective to achieve. This is still 10 per cent higher than the Commission’s minimum target and that 10 per cent will have to come from the household waste stream. It will be no easy matter to obtain such tonnages. This will be a vastly more expensive target to achieve than that proposed by the Commission. The lack of a maximum recycling figure could have the effect of distorting the single market as well as making cost-benefit considerations negative.

97. Neither the Commission⁵⁰ nor the Rapporteur⁵¹ provide a cost estimate for the EC or individual Member States of the additional costs needed to meet the amendments proposed by Dr Corbey. Nor have the environmental benefits of doing so been assessed (see paras 21 and 23). The United Kingdom packaging industry could be expected to pay between £878 million and £948 million a year more to achieve the “Corbey” targets. It seems to us that this would be a significant imposition given the lack of any rigorous cost benefit analysis or any analysis of the presumed benefit to the environment. **We therefore urge the Government to resist attempts to revise further the targets set out in the draft Directive beyond those changes agreed at the Environment Council on 25 June 2002.**

⁵⁰ Q 538.

⁵¹ Q 554, 555, 564.

PART 6: THE COMMITTEE'S VIEWS AND RECOMMENDATIONS

98. The Committee set out to consider whether or not the United Kingdom could meet the Commission's 2006 targets. To do this, it was necessary to examine how the United Kingdom market-based system had worked since it was set up in 1998. We concluded that the system had given the United Kingdom the lowest costs in the EU. This was partly because market competition drives down prices—unlike the near monopolies in the Member States that had achieved higher targets—partly because the industry has taken up the easily accessible industrial and commercial waste, and partly because United Kingdom targets and achievement levels have been less demanding than those of most other EU Member States. The market system operated by the United Kingdom was unable to meet the 2001 target of 50 per cent recovery; it fell slightly short of this target.

99. Nevertheless, we concluded that it would be possible for United Kingdom industry to meet the higher targets set by the Commission by 2006, but that this would cost considerably more. We experienced some difficulty in obtaining agreed data on the costs and based our view on the updated data that DEFRA submitted at the end of the inquiry. Now that it appears that both the Commission and the European Parliament are settling for a target date of 2008, achievement of these targets becomes very much more possible. Although the cost curve is longer and there is less pressure on achieving the highest targets by 2006, the overall cost to the year 2008 will still be considerable.

100. We noted two problems here: securing the additional tonnages of recyclable material needed to meet higher targets; and the increased costs of paying for these tonnages because they will have to be sourced from the household waste stream.

101. Excessive delay in agreeing the draft Directive would not be helpful for maintaining momentum needed by the United Kingdom system which depends on clear and sustained market signals to stimulate the investment needed. **We recommend that the Government continue to press for the early adoption of this Directive.**

THE ROLE OF THE EUROPEAN PARLIAMENT

102. Throughout the inquiry, we have been concerned that the amendments put forward by the Rapporteur of the EPHCP Committee of the European Parliament, Dr Dorette Corbey, might require United Kingdom industry to meet even higher targets by 2006. We agree with the witnesses who claimed that this would be very difficult and immensely expensive and that the benefit to the environment of meeting such targets had yet to be proved. The EPHCP Committee, at its meeting on 9 July 2002, amended the Rapporteur's proposal. The Committee agreed that:

- the target date should now be 2008;
- material-specific minimum targets should be those proposed by the Commission in the draft Directive;
- the overall recycling target should be 65 per cent with no maximum; and
- there should be no target for overall recovery.

103. These changes have the effect of bringing the Parliament's proposals closer to those of the European Commission and so too the possibility of an early agreement between the Parliament and the Council in the Autumn. However, **we note the European Parliament's intention not to include maximum recycling targets. This makes neither economic nor environmental sense. We urge the Government to try to ensure that maximum recycling targets, as set out in the proposed European Commission Directive, are maintained and we urge the Government to resist further the attempts to revise the targets set out in the proposed Directive beyond those changes agreed at the Environment Council on 25 June 2002.**

104. The Committee was disturbed to learn that a substantial series of amendments to EC legislation that carried considerable financial and economic consequences for Member States could be put forward without these amendments being supported by extensive independent cost-benefit analysis and environmental impact assessments. **The Committee urges the Government to consider what possible remedies might be appropriate, and how they might be achieved.**

105. We think that the Government should encourage the Rapporteur's "prevention strategy" as part of a general policy to reduce packaging waste, but recognise that this is a wider issue than packaging and should not be permitted to cause unnecessary delay in agreeing the proposed revised targets. We note that the Commission will be dealing with these issues as part of a further review of the 1994 Directive.

POSSIBLE CHANGES TO THE UNITED KINGDOM SYSTEM

106. We have concluded that it would be unwise to change the United Kingdom system radically. It has only been working since 1998 and the regulatory agencies are getting better at analysing and predicting the effects of interim targets. Bigger challenges lie ahead. Costs will rise exponentially, thus increasing the need for accurate data. Because industry will now have to take packaging and packaging waste from the household waste stream to meet higher targets, it will be even more difficult to provide accurate figures that would enable the regulatory agencies effectively to guide the market towards those higher targets. We note that the regulatory agencies have proposed a series of changes to the system. **We think the system should be simplified and we urge the Government to consider how this might be achieved.**

107. Simplifying the administration of the system would also enable companies exempted under the *de minimis* rule to be included. This is important. The original estimate that the amount of packaging waste produced by such companies might constitute 5 per cent of all packaging waste has proved to be a serious underestimate. Industry witnesses⁵² think that the figure is now in the region of 10-13 per cent. This exemption has increased the costs to the obligated companies and raised the United Kingdom's overall recovery target in 2001. **We urge the Government to consider how, through simplifying the administration of the system, especially for small and medium sized enterprises, the obligation could be extended to include all companies placing packaging on the market.**

108. To build confidence in the industry in what will become a costly system, **the Government needs to strengthen the mechanisms for ensuring that PRN revenues support an expansion of the infrastructure.**

109. As the system deals with ever increasing sums of money, it is essential that the market be properly audited. This requires the regulatory agencies to control and audit the flow of data from the obligated companies and compliance schemes in a more coherent way than has happened so far. **The Committee agrees with the views of many witnesses that greater transparency and timeliness in the provision of data by all parties is needed to sustain confidence in the system. The Committee, therefore, recommends that data should be required to be submitted on a quarterly basis and that the regulatory agencies should issue quarterly statements of account.** In this way, both the agencies and the companies and compliance schemes can judge the industry's performance during the compliance year. If the reporting system is simplified, this should not be an impossible requirement.

110. It is imperative that DEFRA set the interim targets earlier so that the companies know what they have to achieve in the coming year. Witnesses⁵³ have also made a strong case for target-setting to be over a three-year period, instead of the yearly exercise as at present. **The Committee agrees and urges the Government to provide for early target-setting over a three-year period.**

111. The Committee noted that, while individual companies can be held legally responsible for failing to comply, compliance schemes are not subject to similar sanctions. If a compliance scheme fails, the only sanction in the implementing regulations at present is de-registration—and that through a lengthy system of appeal. **The Committee urges the Government to reconsider the means necessary to enforce compliance so that all, companies and compliance scheme operators, can be held equally to account.**

112. The PRN/PERN system of demonstrating compliance works well in that it shows how the market responds to the various pressures that recycling packaging and packaging waste brings. **The Committee urges the Government to review the implementing regulations to ensure that compliance by companies and compliance scheme operators though the presentation of PRN/PERNs is supported by enforceable sanctions.**

113. The United Kingdom, nationally, can be held responsible by the European Commission for failing to meet targets. But it was not clear to the Committee what power DEFRA had to ensure that regulatory agencies' targets were met. **The Committee urges the Government to make clearer the relationship between central Government and the devolved authorities in this matter.**

114. It is also important to identify clearly how Local Authority targets, landfill targets and packaging targets, link together to ensure that United Kingdom measures taken to meet these maximise the potential for mutual support and minimum overall cost. **The Government needs to encourage dialogue between industry and the Local Authorities with aim of providing the Local Authority sector with an assessment of what type of measures or mechanisms the packaging industry could take in promoting and supporting household packaging recovery, and the criteria that the packaging industry would have to use to determine this support.**

⁵² See written evidence from Unilever, p 126, slide 5.2; and INCPEN, p 16 and Q 75.

⁵³ Q 40; supplementary evidence from the Environment Agency, p 113, para 3.5.

115. If the United Kingdom is to be able to meet the environmentally-based demands being made on the packaging industry in the EU, while at the same time integrating such demands with the Government's own waste strategy, the Committee thinks it essential that there should be a single authority able to provide the direction and vision. We found no sign of this in our inquiry; quite the reverse. Industry argued strongly for a guiding hand.⁵⁴ **We, therefore, urge the Government to consider, in consultation with the packaging industry, the regulatory agencies, and the Advisory Council on Packaging, how to achieve this single authority for packaging.**

116. In the course of this inquiry we became aware of the wide range of national and EU prescriptions on various forms of waste in addition to the proposal for packaging and packaging waste. This includes: the Waste Framework Directive and other EU agreements; the Landfill Directive with its programmed removal of tyres from landfill, the ban on co-disposal of hazardous and non-hazardous wastes, the requirement for the pre-treatment of municipal waste and the reduction in biodegradable waste; the Refrigerator Directive; the imminent Waste Electrical and Electronic Equipment Directive; the End of Life Vehicles Directive; and the proposals in draft to replace the 1991 Batteries Directive. There is also the Government's Waste Strategy 2000 which incorporates a range of targets for municipal solid waste, and the 2004 review of landfill tax which is expected to trigger sharp increases in this tax.

117. The Committee was unable to discern a pattern of inter-departmental co-ordination under a guiding authority that would provide a strategic overview of environmental regulation. **We ask the Government to clarify the mechanism it has established to ensure that there is a common policy and consistent approach with a defined longer-term strategy.**

118. The Committee considers that the European Commission's packaging and packaging waste proposals raise important questions to which the attention of the House should be drawn, and recommends this Report to the House for information.

⁵⁴ See written evidence from the Packaging Federation, p 63; and the additional supplementary memorandum from Unilever, pp 131–137.

APPENDIX 1

Membership of Sub-Committee B

The Members of Sub-Committee B which conducted this inquiry were:

Viscount Brookeborough
Lord Brooke of Alverthorpe (Chairman)
Lord Cavendish of Furness
Lord Chadlington
Baroness Cohen of Pimlico
Lord Faulkner of Worcester
Baroness O'Cathain
Lord Shutt of Greetland
Lord Skelmersdale
Lord Wilson of Tillyorn
Lord Woolmer of Leeds

APPENDIX 2

Call for Evidence*Version sent to United Kingdom Organisations*

Sub-Committee B (Energy, Industry and Transport) of the House of Lords Select Committee on the European Union is undertaking an inquiry into the issues raised by Directive 94/62 and the proposed new recycling and recovery targets submitted by the Commission to the European Parliament.

The Commission's proposed amendments are as follows

- Overall recovery target between 60% and 75%
- Overall recycling target between 55% and 70%
- Material specific recycling targets (by weight) of :
Glass 60%: Paper/board 55%: Metals 50%: Plastics 20%

These targets are to be achieved by 30th June 2006

Evidence is invited on the costs and benefits to the United Kingdom (UK) of meeting the revised targets and whether the current UK approach (The Producer Responsibility Obligations (Packaging Waste) 1997) provides an effective and fair mechanism to achieve compliance.

In particular, the inquiry will be seeking views on and answers to the following:

- 1) (a) Is the UK system capable of meeting these targets? If so, at what extra cost?
(b) If not, what would need to be done to enable it to meet the targets?
(c) What costs would be involved?
- 2) How does the UK system compare with
(a) the German DSD?
(b) the Dutch and Danish approach?
(c) other methods used by other EU Member States?
- 3) Who should pay, how, and why?
(a) the producer chain?
(b) local authorities?
(c) the consumer?

Version sent to non-United Kingdom Organisations

Sub-Committee B (Energy, Industry and Transport) of the House of Lords Select Committee on the European Union is undertaking an inquiry into the issues raised by Directive 94/62 and the proposed new recycling and recovery targets submitted by the Commission to the European Parliament.

The Commission's proposed amendments are as follows

- Overall recovery target between 60% and 75%
- Overall recycling target between 55% and 70%
- Material specific recycling targets (by weight) of :
Glass 60%: Paper/board 55%: Metals 50%: Plastics 20%

These targets are to be achieved by 30th June 2006

In particular, the inquiry will be seeking views on and answers to the following:

- 1) (a) Is your system capable of meeting these targets? If so, at what extra cost?
(b) If not, what would need to be done to enable it to meet the targets?
(c) What costs would be involved?

- 2) How does your system compare with
 - (a) the UK system?
 - (b) the German DSD?
 - (c) the Dutch and Danish approach?
 - (d) other methods used by other EU Member States?
- 3) Who should pay, how, and why?
 - (a) the producer chain?
 - (b) local authorities?
 - (c) the consumer?

APPENDIX 3

List of Witnesses

The following witnesses gave evidence. Those marked * gave oral evidence.

- Aluminium Packaging Recycling Organisation
- Association of British Health-care Industries (ABHI)
- * Biffpack
- British Plastics Federation
- * Professor Chris Coggings (on behalf of Institute for Wastes Management)
- Confederation of Paper Industries
- * Dr Dorette Corbey, MEP
- Corus
- CSERGE
- Ecoembalajes España, S.A.
- * Environment Agency
- Environment and Heritage Service (EHS)
- Environment Exchange
- * Department of Environment, Food and Rural Affairs (DEFRA)
- Food and Drink Federation
- * INCPEN
- * Institute for Wastes Management
- * Dr Otto Linher, European Commission
- * LINPAC Plastics Ltd
- * Local Authority Recycling Committee (LARAC)
- * Local Government Association (LGA)
- Onyxpak
- * Packaging Federation
- Professor David Pearce
- * Perchards (on behalf of INCPEN)
- Pro Carton
- Repak
- * Scottish Environmental Protection Agency (SEPA)
- Scottish Wholesale Association
- St Regis Paper Company Ltd
- Tesco
- Timcon
- * Department of Trade and Industry (DTI)
- * Unilever
- * Valpak
- VWR International Ltd
- Waste Watch
- * Wastepack

APPENDIX 4

The United Kingdom System*Note by the Specialist Adviser*

1. The purpose of this Appendix is to provide a more complete description of how the 1994 Directive 94/62/EC on Packaging and Packaging Waste⁵⁵ has been implemented in the United Kingdom. It looks at the aims of the system, its main characteristics and how it is regulated.

CHARACTERISTICS OF THE UNITED KINGDOM SYSTEM

2. The aims of the system adopted in the United Kingdom can be characterised as follows:

- although designed to permit any target level to be met, it has been administered to meet **the minimum levels** set in the Directive;
- it was designed to place the **additional or incremental costs** of meeting these targets on the Packaging Industry;
- it was designed to ensure **all parts** of the packaging chain play a role and bear these costs; and
- it uses **competition** and a **market-based mechanism** to deliver the targets and control costs.

PRODUCER RESPONSIBILITY

3. In terms of producer responsibility falling in the packaging chain, it provides partial responsibility in the sense that obligated companies are not expected to pick up the full costs of packaging recovery, only the incremental costs. Furthermore their responsibilities extend to the targets set and not beyond. The packaging recovered can be from any sector and the packaging industry has no specific responsibility for recovering packaging in the household waste stream.

SHARED COSTS

4. Local Authorities, the public, and non-obligated businesses are required to pay for waste management systems which will include packaging recovery as a viable activity in its own right. This is mainly due to avoided disposal costs, partly due to the inherent value and hence revenue from selling collected materials and, in the case of local authorities, packaging recovery contributes to meeting their mandatory recycling and diversion targets.⁵⁶ It is not possible clearly to differentiate or predict with confidence what proportion of costs will fall on the various parties because disposal costs vary, commodity prices fluctuate, and local authorities have freedom to choose which materials (packaging or non-packaging in origin) they target for recovery. Although the amount of additional money raised by the system can be measured along with the total amounts reprocessed, it is not possible to identify, definitively, what specifically the funding has achieved because it is only one of a number of factors that influence investment and activity levels. Table 3 and associated text in the main report illustrates a hypothetical cost breakdown of why this is so.

5. This “partial responsibility” approach on the packaging chain is adopted by most Member States, the exceptions being Austria and Germany where full responsibility for the cost of packaging recovery, particularly for household packaging flows is taken and the Dutch and Danish systems where municipal authorities and industrial and commercial waste producers bear the costs.

6. With all systems, the eventual costs are paid for by the consumer in terms of prices paid for goods and services. Equally, one can identify benefits to society in terms of economic activity created and reduced resource demands, waste and emissions.

THE UNITED KINGDOM REGULATIONS

7. The United Kingdom Producer Responsibility Obligations (Packaging Waste) Regulations 1997⁵⁷ set out the mechanism used to deliver the recycling and recovery targets. The essential requirement element of the Directive was enacted in the United Kingdom through the Packaging

⁵⁵ Official Journal of the European Community L356 (31.12.1994) p.10.

⁵⁶ Cm 4693 - DEFRA, Waste Strategy 2000, England and Wales

⁵⁷ SI No 648 (1997)

(Essential Requirements) Regulations 1998.⁵⁸ Although the latter is a key measure, and likely to become more so over time, this inquiry has focused on costs to industry of delivering the targets.

8. Two main features were built into the 1997 Regulations to promote cost efficiency and equity.

COST EFFICIENCY

9. Cost efficiency was promoted by ensuring competition exists in the way companies discharge their obligations. They can register directly with the enforcement agency or by joining one of a number of compliance schemes.

EQUITY

10. Equity was promoted by allocating the responsibility for meeting targets to all sectors in the packaging chain; i.e. raw material suppliers (e.g. steel makers), packaging converters (e.g. steel can makers), packaging fillers (e.g. drink companies filling the cans) and finally the wholesale/retailer (e.g. supermarkets). This is known as the shared approach where each sector has a percentage of the overall obligation, table A1 indicates the current levels. (Single point obligation systems used in other Member States place the responsibility on the company placing the package on the market (e.g. brand holders for consumer packaging)).

Table A1: Allocation of Responsibility – “The Shared Approach”

Raw materials manufacturer	6 per cent
Converting operation	9 per cent
Packer / filler	37 per cent
Retailer	48 per cent

IMPORT/EXPORT

11. As the regulations require all packaging placed on the United Kingdom market to be covered, rules to accommodate import and export flows were needed. For imported packaging, the importer has to pick up the percentage obligation that would have been incurred had the product or package been of United Kingdom origin (e.g. a retailer importing wine must pick up the raw material, converter and filler percentages as well as their own retailer obligation). For exported products or packaging, obligations incurred prior to export are cancelled.

DATA DEMANDS

12. The Regulations⁵⁹ provide details of data required and should be referred to in order to assess the scale of the task. A major problem in the early stages has been identifying the individual weights of packaging associated with products. The shared obligation approach and the need to account for import/export flows requires a considerable level of information to be collected by and exchanged within the packaging chain to permit obligated tonnages of each company to be assessed. For a given company, the same pack can have a number of different percentage obligations depending on where bought, filled and sold. Most of these data calculations and reporting requirements were not required before the regulations. They place a high internal administration cost on industry and, for that reason, arrangements were made to ease the problem for smaller companies.

DE MINIMIS

13. To prevent excessive administrative costs falling on smaller companies and the regulatory agencies, the regulations exempt companies with a turnover of less than £2 million and companies handling fewer than 50 tonnes of packaging per annum (i.e. the *de minimis* threshold). Initially the non-obligated tonnage resulting from the threshold was estimated to be 5 per cent. To account for this non-obligated tonnage, targets on obligated businesses need to be raised above the Directive minima by a corresponding amount. Thus to meet the 50 per cent recovery level in the directive, obligated businesses in the United Kingdom were initially required to achieve 52 per cent. This was subsequently raised to 56 per cent when the “gap” between tonnage handled by obligated businesses compared to the total on the market was revealed to be somewhat larger (at least 10 per cent).

⁵⁸ SI No 1165 (1998)

⁵⁹ SI No 648 (1997)

RESPONSIBLE AGENCIES

14. The regulations enable the responsible departments in Government (DEFRA for the United Kingdom as a whole, Environment Agency for England and Wales, Scottish Executive for Scotland, Northern Ireland Office for Environment and Heritage for Northern Ireland) to set, on an annual basis, mandatory target levels for packaging recovery and recycling on obligated businesses. The levels selected aim to ensure the United Kingdom as a whole meets the Directive targets by the due date i.e. July 30th 2001 in the case of the 1994 Directive. The regulations are administered by the relevant Agencies (Environment Agency (EA), the Scottish Environmental Protection Agency (SEPA), and the Environment and Heritage Services (EHS)). Obligated businesses and compliance schemes are legally obliged to register with one of these authorities.

SETTING TARGETS

15. The tonnage obligation on each company has three separate components to reflect the Directive's 50 per cent recovery, 25 per cent recycling and 15 per cent minimum material-specific recycling targets:

- an overall tonnage which can be met by demonstrating recovery and or recycling of any packaging material;
- within the above tonnage, a requirement that 50 per cent of the overall recovery amount is met by recycling;
- within the above tonnage, lower material-specific obligations which must reflect the packaging materials the company handles.

This latter element is necessary to ensure the minimum material-specific recycling targets are met. However, it is important to recognise that companies do not need to demonstrate that the particular packaging or packaging types they handled have been recovered. The system permits companies to meet their obligation by obtaining evidence that the obligated amounts in the three categories have been recovered or recycled irrespective of source.

16. The freedom to comply with packaging from any source permits the most cost effective materials to be collected and reprocessed. At the levels set in the 1994 Directive, recovery has been dominated by collections from the larger industrial and commercial packaging waste flows, particularly tertiary and secondary packaging (e.g. pallets, crates, corrugated cardboard boxes, plastic shrink wrap). Apart from glass, and to a lesser extent metals, the more widely dispersed, smaller and lighter primary packaging that ends up in the household waste stream has not been targeted for recovery. Similarly, flows from smaller commercial and business operations have been largely ignored. Collection and recovery from these latter two sources is more costly.

PACKAGING RECOVERY NOTES (PRNs)

17. The evidence required to demonstrate compliance is normally in the form of Packaging Recovery Notes (PRNs). These can only be issued by accredited United Kingdom recycling / recovery operations which are approved and registered as such by the appropriate regulatory body (e.g. EA, SEPA etc.). Each PRN is issued against one tonne of packaging recycled and, along with other audit-support information the note specifies the type of material reprocessed. If packaging is recovered rather than recycled, for example, through an energy-from-waste plant, the PRN issued is a general recovery note and cannot be used as evidence of meeting recycling obligations. As the Commission's targets require additional recycling rather than additional recovery, discussion of recovery PRNs in the report is limited. Comment in this appendix is confined to noting that the combustible packaging content of a waste (this may be industrial, municipal or clinical waste) going to the combustion plant has to be estimated by the regulator. This estimate determines how many tonnes must be burnt before the operator can issue a recovery PRN.

PACKAGING RECOVERY EXPORT NOTES (PERN)

18. For Packaging exported for recovery or recycling, Packaging Recovery Export Notes (PERNs) are issued to the exporting organisation (usually the collector). Again the regulatory agencies are required to ensure, through an audit trail, that such packaging has been recycled or recovered.

PRN/PERNs as Evidence of Compliance

19. Although demonstrating proof of recycling and recovery by obtaining PRN/PERNs was not originally defined within the regulations (and remains outside) regulatory guidance issued has made this the dominant mechanism used. The Regulatory agencies can withdraw accreditation and prosecute reprocessing companies if PRN/PERN notes are issued fraudulently.

PRN/PERNs AS ECONOMIC INSTRUMENTS

20. PRN/PERNs not only demonstrate proof of meeting the tonnage obligations of companies and compliance schemes, they also provide the main vehicle for raising the additional money from obligated businesses needed to stimulate investment in the additional capacity. Their value, and hence the costs to industry, depend on supply and demand which, in turn, is largely dictated by the difference between the targets (overall and for individual materials) and existing packaging recycling/recovery activity. In theory, it is the market's assessment of what additional finance needs to be injected into the system to stimulate the activity necessary to bridge this gap. For materials such as plastics, where the gap has been large and the costs of stimulating additional recycling are high, the PRN price has been high.

21. It should be noted that PRN/PERNs are issued for **all** packaging recycled and recovered—hence the purchase cost of the PRN (typically ranging between £15 to £40/t in 2001) does not represent the marginal cost of recovering and recycling the additional tonnage. This can only be estimated by considering the total additional revenues raised alongside the measured increase in tonnes processed.

22. Companies (accredited United Kingdom reprocessors and exporters) receiving the PRN/PERN revenue generated by the system are required to report to the appropriate regulatory body how this revenue has been spent. Three main categories of expenditure are identified: investment in collection systems, investment in reprocessing capacity, and development of markets for recyclates. **The regulatory body has no role in directing how these funds are used.**

23. The regulations do not require that obligated companies and their compliance schemes use the PRN/PERN system as the only method of channelling investment funds to increase packaging recovery but, as noted above, this has become the dominant method in practice. What is not readily appreciated is that obligated companies and their compliance schemes are the major sources of packaging waste currently recovered and recycled. Many obligated companies are major purchasers of packaging material from the reprocessors. Companies and schemes can enter into informal or contractual agreements with accredited reprocessors (many of which are also obligated businesses and compliance scheme members in their own right). Such agreements can influence the price paid for the PRN by these companies and the use to which reprocessors allocate investment of the funds. Hence, not all PRN/PERNs are available for open trading and published prices only fully reflect those that are. Furthermore, influence on the use of the revenues raised by issuing PRN/PERNs goes well beyond the accredited reprocessors to encompass all sectors of the packaging industry.

24. Thus, the essential mechanism for delivering the targets, the PRN / PERN system is not defined in the regulations and its operation in terms of how it is traded, and the use of funds raised, is in the hands of the industry. Only in terms of providing the evidential proof required by the regulations that recycling and recovery obligations have been met does the PRN have a statutory role.

REGISTRATION AND ENFORCEMENT POWERS

25. Table A2 (next page) provides the general guidance to registration offered by the Environment Agency (www.environment-agency.gov.uk). More detailed information and any changes over time or related to Scotland and Northern Ireland is given in the regulations and statutory instruments.⁶⁰

⁶⁰ 1997; SI648, 1998; SI1762(NI 16), 1999; SI3447, S115, SR496, 2000: SI3375

Table A2: Environment Agency Advice to Business on Registration Routes for Compliance
(source: www.environment-agency.gov.uk)

Compliance Route A	Compliance Route B
1A. Apply for registration with the National Waste Registration Unit (or equivalent) of your environmental regulator, pay the appropriate fee and provide data on the packaging handled in the preceding year. Supply your environmental regulator with a compliance plan showing the steps proposed to comply with your company's (or group of companies) obligations if turnover exceeds £2 million per year.	1B. Obtain a comprehensive list of registered compliance schemes from your environmental regulator.
2A. Make arrangements to fulfil your company's legal obligations to recover and recycle packaging waste. The regulations require you to recover and recycle certain percentages of packaging and these percentages vary according to whether your company: <ul style="list-style-type: none"> • manufactures raw materials used for packaging; • converts raw materials into packaging; • packs or fills packaging; • sells packaging or finished goods to the final user or consumer; • imports packaging or packaged products; or • carries out any combination of these activities. 	2B. Join a registered compliance scheme. This will fulfil your company's legal obligations on your behalf.
3A. Provide documented evidence to the National Waste Registration Unit (or equivalent) that the specified percentage of your packaging waste (appropriate to your activities) is being recovered or recycled. The documented evidence is usually in the form of 'Packaging Waste Recovery Notes' (PRNs), issued by the accredited reprocessors although other forms of acceptable evidence are also available.	3B. Provide data to your chosen compliance scheme operator on your annual packaging throughput. The scheme will also require your company to pay a fee which may vary from scheme to scheme.
4A. If you cannot obtain PRNs directly from an accredited reprocessor or if you are unable to meet your obligation for other reasons, you can purchase PRNs on the open market to cover the percentage of your obligation. Your environmental regulator will be able to provide you with details of organisations from which you can purchase 'bona fide' PRNs.	
5A. In some circumstances it may not be possible to obtain a PRN and in this case you may be able to rely upon suitable alternative evidence. You should seek the advice of the environmental regulator before doing so and refer to any guidance issued by the regulator.	
6A. You are likely to have to pay to obtain a PRN or suitable alternative evidence. Any fee is set by the reprocessor and is subject to market forces.	
7A. At the end of the registration year, supply your environmental regulator with a Certificate of Compliance stating whether or not you have discharged your recovery and recycling obligations.	

COMPLIANCE OPTIONS

26. Two compliance routes are available; companies (or groups of companies) can register directly with the agency or with a registered compliance scheme (17 registered). Registration is renewed annually and based on meeting the *de-minimis* thresholds of £2 million turnover and the 50 tonnes of packaging handled the previous year. The obligated tonnage to be recycled and recovered has to be notified to the regulator in April of the compliance year.

27. The regulations operate over the calendar year and companies or groups of companies can change the route adopted in subsequent years, i.e. join an alternative compliance scheme or register individually. A registered company may join a compliance scheme during the year.

REGISTRATION

28. Whether registered directly or through a compliance scheme, an annual fee is charged (a variable scale of charges applies depending on company size or compliance scheme membership). The fee-levels set aim to cover the cost of administration and policing the system by the regulator. For the Environment Agency, annual administration costs were estimated to be £2.7 million⁶¹ (2001).

29. An application for registration or renewal for individual producers and compliance schemes must be submitted on or before the 1st April along with the required information on tonnage obligations. For registration of a compliance scheme, the scheme must further provide a statement of the scheme's rules and regulations and an operational plan. This includes evidence of financial resources to meet members' obligations and how, in practical terms, the scheme intends to fulfil their members' obligations. The appropriate Agency has to be satisfied with the operational plan. Compliance schemes also need the approval of the Secretary of State to operate.

OFFENCES

30. For all obligated companies, failure to register either directly or with a compliance scheme is an offence. It is also an offence knowingly or recklessly to supply false or misleading information.

31. If registered individually, the company has a legal obligation to take reasonable steps to recover and recycle its obligated tonnage and to furnish a Certificate of Compliance in respect of its recovery and recycling obligations at year end. If a member of a registered compliance scheme, the responsibility for compliance falls on the scheme. The Certificate of Compliance must include evidence acceptable to the Agency for the packaging recovered and recycled. As noted, this will usually be in the form of PRN/PERNs obtained from accredited reprocessors or exporters.

DE-REGISTRATION

32. If an offence under the regulations is committed, a notice of de-registration of a scheme or company can be issued by the appropriate Agency (e.g. EA, SEPA). Twenty eight days notice is given to individual companies, six months in the case of schemes. In the case of schemes, de-registration also occurs if the approval of the Secretary of State is withdrawn.

33. De-registered companies must either resubmit a satisfactory registration or join a compliance scheme. Companies in a scheme that is de-registered must register directly with the Agency or join another scheme.

34. For schemes, an appeal against de-registration can be made to the Secretary of State within the six month notice period. During the six month period or, if an appeal is lodged, until a ruling by the Secretary of State has been given, the scheme remains registered.

NON COMPLIANCE WITH TONNAGE OBLIGATIONS

35. Directly registered companies that fail to meet compliance can be prosecuted.

36. Companies that are members of schemes are immune from prosecution for offences related to achieving the tonnage compliance while the scheme is registered.

37. There are no sanctions other than de-registration for compliance schemes that fail to recover or recycle the tonnage obligation of their members.

38. As Certificates of Compliance are only submitted at year end, evidence to justify the de-registration of a scheme on the grounds that tonnage obligations had not been met will fall outside the year the scheme fails to comply. In theory de-registration could be initiated earlier under the terms of "taking reasonable steps" to recover and recycle during the year in question. In practice, this assessment can only be made retrospectively when the certificate of compliance is lodged. **Essentially, any failure to meet obligations in a particular year occurs while the scheme is properly registered and, by definition, members are deemed to be "in compliance".**

39. When a directly registered company fails to meet obligations it can be prosecuted and fined for failure to take reasonable steps to recovery and recycle. When a company is registered with a scheme, it cannot be prosecuted. Nor can the compliance scheme because the sanctions available under the regulations are limited to de-registration. Furthermore there are no powers to require a company or scheme to make-good, in future years, past failure to recover and recycle.

⁶¹ DEFRA Charging Mechanism for Registration Fees for Compliance Scheme members (RIA) January 2001

THE SYSTEM IN PRACTICE

40. A timetable of key events and data release during a compliance year has been provided by DEFRA⁶² for 2001. This may be useful to place in context the problems of administration discussed in the main report. Important information for the market, for example, how much packaging has been processed compared to the obligated tonnage, does not become available until the end of the year. The difference between these supply and demand figures are the major factors determining the price of PRN/PERNs on the open market at any given time and have to be guessed.

41. The problem of predicting how PRN/PERN prices will respond when data is uncertain and the system is market-based is evident from the RIA estimate for 2001 issued in January of that year.⁶³ PRN/PERN revenues were expected to be in excess of £165 million, but the out-turn was £70 million.

42. The Regulatory Agencies report on compliance monitoring and enforcement activities. The report for 2001 is available from the Environment Agency⁶⁴.

⁶² Supplementary written evidence from DEFRA, pp 163–164.

⁶³ DEFRA, Recovery and Recycling Targets for Packaging Waste in 2001 (Regulatory Impact Assessment) January 2001

⁶⁴ Environment Agency. Compliance Monitoring and Enforcement Activity in 2001, March 2001.

APPENDIX 5

PRN/PERN Revenues and Subsidies

PRN/PERN REVENUES AND GROWTH IN PACKAGING RECYCLING 1998/9-2001

The table below is presented for illustrative purposes—it covers the period 1999-2001 because of the problems over the availability of data. The amount of finance raised to subsidise the recycling of waste packaging materials varied considerably among the individual materials. The additional recycling achieved also varied widely between the packaging materials. Very little of the finance raised went to support the export of waste for recycling. But over 30 per cent of the increase in recycling was achieved by exporting waste.

Over these three years around £133m was raised through the PRN/PERN system for subsidising recycling of waste packaging. Almost all of this (£121m) subsidised United Kingdom-based recycling activity with only £12m subsidising the export of waste packaging for recycling purposes.

£73m or 55 per cent of subsidies went to supporting recycling of paper packaging waste. Recycling of glass, plastics, steel and wood each received in the range of 7 to 14 per cent of subsidies raised. Aluminium recycling received minimal subsidy.

Wood waste packaging received among the lowest financial support but contributed over 40 per cent of the growth in recycling. Recycling of paper packaging waste in the United Kingdom received much the largest support yet the amount recycled actually fell. Financial support for the export of paper packaging for recycling was very limited yet such exports increased substantially.

	Recycling Revenues 1999-2001 (£millions)			Growth in Packaging Recycling 1998- 2001 (thousands tonnes)		
	PRN	PERN	Total	UK	Export	Total
Paper	69.4	3.9	73	-43	179	136
Glass	16.6	0.7	17	261	-30	231
Plastics	15.1	2.7	18	88	56	144
Steel	10.5	4.4	15	1	95	96*
Aluminium	0.8	0.1	1	12	3	15*
Wood	8.6	0.0	9	443	0	443
Total	121	12	133	762	303	1065
Total excl. wood	112	12	124	319	303	622

*New protocols agreed have increased reported tonnage; growth overestimated, particularly Aluminium.

Note: 1 Revenues exclude 1998 PRN/PERN data

Note: 2 Growth taken from 1998 base line.

ESTIMATES OF MARGINAL COST OF PRN/PERN SUPPORT FOR PACKAGING RECYCLING GROWTH 1998-2001

Put simply, the marginal subsidy required for recycling material is the cost of the PRN/PERN for recycling the next tonne of material. As we increase the proportion of materials recycled, costs tended to rise. In the early stages the easiest, most convenient sources of materials are used. As more and more is recycled, collection, sorting and transport costs increase and the quality of materials available deteriorates so increasing costs of reprocessing. Witnesses told the Committee that costs tend to increase as on an upward J-curve, i.e. more than proportionately as more and more recycling is achieved for any one material. Other things being equal, this will increase the subsidy required—hence the price of the PRN/PERN for the material.

We found no agreement on a single measure of marginal subsidies over the period 1998-2001. In principle, the marginal subsidy would be expected to rise each year but for data purposes we present

two measures over the period as a whole. The second measure might be considered the more appropriate.

By that measure, the marginal subsidy required for increasing recycling of all materials was around £125 per tonne over 1998-2001. But marginal subsidies vary enormously by materials. Wood was much the lowest per tonne at £19 while paper required £539 per tonne. The main contributors by tonnage to increased recycling over the period were wood and glass and these required among the lowest subsidies per tonne.

As the amounts of recycling increase in the years ahead we can expect the overall costs of supporting recycling to increase for two reasons. First, the marginal costs will rise for each material. Second, we will have the increased recycling of materials that involve higher costs and hence higher subsidies if there are higher targets set for all.

Packaging Material	Estimates of Marginal Cost of PRN/PERN Support 1998-2001 per Tonne Recycled	
	Estimate 1 ⁽¹⁾	Estimate 2 ⁽²⁾
Paper	£1,700	£539
Glass	£27	£75
Plastics	£59	£123
Steel*	£76	£155*
Aluminium*	£55	£62*
Wood	£14	£19
Total	£74	£125
Total Excluding Wood	£104	£199

⁽¹⁾ Accumulated additional amount recycled

⁽²⁾ Net increase in amount recycled

* Steel and Aluminium protocols not accounted for – effect would be to increase both sets of values. (Aluminium significantly higher.)

APPENDIX 6

Duales System Deutschland Annual Report 2001

ENVIRONMENT INFORMATION NOTE 21.02—15 JULY 2002

WASTE

The Duales System Deutschland (DSD) published its annual report on 5 July. 2001 saw a slight fall in turnover and packaging handled. Licence fees have also been reduced. This Note also covers DSD's review of its collection and recycling figures, published in May 2002. Although these figures are slightly down on the previous year, all national and EU recycling targets have been met.

DSD is a non-profit organisation responsible for the collection and sorting of waste packaging. The service is financed by manufacturers, who pay licence fees to DSD according to the material and size of their packaging. Licensed packaging carries the green dot symbol. The DSD is required to publish its collection and recycling figures annually.

ANNUAL REPORT

DSD's turnover in 2001 was € 1.88bn, a marginal decrease compared to € 2.03bn in 2000. The cost of DSD's collection and sorting service rose slightly to €1.85bn (against € 1.81bn in 2000). This figure includes the creation of reserves, which rose in 2001 to €118m. This will offset the decrease in revenue expected by DSD when single-use beverage containers are removed from the DSD system and covered by a deposit scheme planned for 2003 (see Note 20.02). DSD reduced the cost of its licences last year by a total of €130m against 2000. The company put the savings down to improvements in service structures and technological developments such as increased automation.

The increase in DSD customers since 1991 continued in 2001. 1 272 new customers joined in 2001 taking the total to 18 975. A third of last year's new customers were foreign based companies: 4 571 foreign organisations now subscribe to DSD.

RECYCLING DATA

DSD collected 5.5m tonnes of packaging in 2001 (2000: 5.7m tonnes). The total, including unlicensed or waste incorrectly placed in DSD's yellow bins, is 6.3m tonnes (2000: 6.4m tonnes). DSD uses this latter figure to calculate its collection rate per capita of 76.6 kg. The reduction in the weight of waste handled by DSD against the previous year is largely due to the increase in the use of PET plastic bottles at the expense of glass.

DSD passed 5.3m tonnes of its packaging on for recycling in 2001. The company has again been able to meet all recycling targets stipulated in national and EU legislation. The percentages in the table below are based on licensed packaging rather than total packaging and as a result may be greater than 100 per cent.

DSD Packaging Recycling Data				
	Quantities passed on for recycling (in million tonnes)		Percentage of licensed waste passed on for recycling in 2001	Packaging Ordinance targets
	2001	2000		
Glass	2.5	2.67	93%	75%
Paper/cardboard	1.48	1.51	166%	70%
Plastic	0.59	0.57	87%	60%
Tinplate	0.31	0.32	114%	70%
Aluminium	0.043	0.041	105%	60%
Compounds	0.368	0.376	65%	60%

DSD have calculated the energy savings and reduction in CO₂ emission as a result of 2.3m tonnes of aluminium, plastic, compounds and tin recycling (glass and paper will be added to the calculations in the future). They estimate savings in 2001 at 400 000 tonnes of CO₂ and 33bn megajoules of energy.

Note 22.01 details recycling data published in 2001.

APPENDIX 7

List of Recommendations

1. We urge the Government to resist attempts to revise further the targets set out in the draft Directive beyond those changes agreed at the Environment Council on 25 June 2002.
2. We recommend that the Government continue to press for the early adoption of this Directive.
3. We urge the Government to try to ensure that maximum recycling targets, as set out in the proposed European Commission Directive, are maintained.
4. The Committee was disturbed to learn that a substantial series of amendments to EC legislation that carried considerable financial and economic consequences for Member States could be put forward without these amendments being supported by extensive independent cost-benefit analysis and environmental impact assessments. The Committee urges the Government to consider what possible remedies might be appropriate, and how they might be achieved.
5. We think the system should be simplified and we urge the Government to consider how this might be achieved.
6. We urge the Government to consider how, through simplifying the administration of the system, especially for small and medium sized enterprises, the obligation could be extended to include all companies placing packaging on the market.
7. The Government needs to strengthen the mechanisms for ensuring that PRN revenues support an expansion of the infrastructure.
8. The Committee agrees with the views of many witnesses that greater transparency and timeliness in the provision of data by all parties is needed to sustain confidence in the system. The Committee, therefore, recommends that data should be required to be submitted on a quarterly basis and that the regulatory agencies should issue quarterly statements of account.
9. The Committee urges the Government to provide for early target-setting over a three-year period.
10. The Committee urges the Government to reconsider the means necessary to enforce compliance so that all, companies and compliance scheme operators, can be held equally to account.
11. The Committee urges the Government to review the implementing regulations to ensure that compliance by companies and compliance scheme operators through the presentation of PRN/PERNs is supported by enforceable sanctions.
12. On the matter of responsibility for achieving EC targets, the Committee urges the Government to make clearer the relationship between central Government and the devolved authorities.
13. The Government needs to encourage dialogue between industry and the Local Authorities with aim of providing the Local Authority sector with an assessment of what type of measures or mechanisms the packaging industry could take in promoting and supporting household packaging recovery, and the criteria that the packaging industry would have to use to determine this support.
14. The Committee thinks it essential that there should be a single authority able to provide direction and vision. We found no sign of this in our inquiry; quite the reverse. Industry argued strongly for a guiding hand. We, therefore, urge the Government to consider, in consultation with the packaging industry, the regulatory agencies, and the Advisory Council on Packaging, how to achieve this single authority for packaging.
15. The Committee was unable to discern a pattern of inter-departmental co-ordination under a guiding authority that would provide a strategic overview of environmental regulation. We ask the Government to clarify the mechanism it has established to ensure that there is a common policy and consistent approach with a defined longer-term strategy.

APPENDIX 8

List of Acronyms and Definitions

ABHI	Association of British Health-Care Industries
Accredited Reprocessor	A reprocessor which is registered & approved by the regulatory body (EA &/ or SEPA) to carry out the recovery or recycling of packaging waste. Only accredited reprocessors can issue PRN's
ACP	Advisory Committee on Packaging
Alupro	Aluminium Packaging Recycling Organisation
BPF	British Plastics Federation
BVPI	Best Value Performance Indicators
C & I	Commercial and Industrial
CEN	Comité Européen de Normalisation <i>European Committee for Standardisation, Standards and Essential Requirements</i>
Compliance Scheme	Scheme organised and run to meet the legal packaging recovery and recycling obligations of its members
CPI	Confederation of Paper Industries
CSERGE	Centre for Social and Economic Research on the Global Environment
<i>De minimis</i>	Businesses which fall outside the Packaging Regulations in that they do not meet the threshold criteria for obligation; they handle less than 50 tonnes of packaging and/ or have a turnover of less than £2 million (reduced from £5m) per annum
DEFRA	Department of the Environment, Food and Rural Affairs
DETR	Department for Environment, Transport and the Regions
DfT	Department for Transport
DSD	Duales System Deutschland <i>The non-profit organisation established in Germany to enable distributors of sales packaging to discharge their individual take-back obligations. It collects and sorts sales packaging from the household waste stream</i>
DTI	Department of Trade and Industry
DTLR	Department for Transport, Local Government and the Regions
EA	Environment Agency
ECOSOC	Economic and Social Committee <i>An independent body under the European Union</i>
EfW	Energy from Waste <i>The incineration of packaging waste as a means to generate energy and recover heat</i>
EHS	Environment and Heritage Service <i>Regulatory Agency for Northern Ireland</i>
EPHCP	Environment, Public Health and Consumer Policy Committee <i>A Committee of the European Parliament</i>
EU-12	Those Member States encompassed by the Packaging Directive, excluding the derogation countries of Greece, Portugal and Ireland
FDf	Food and Drink Federation
FMCG	Fast-moving Consumer Goods

Green Dot	A symbol placed on packaging on which a license fee has been paid. This fee guarantees that the packaging will be collected and sorted according to national requirements.
HDPE	High Density Polyethylene Plastic <i>Used, for example, in making plastic milk bottles.</i>
INCPEN	Industrial Council for Packaging and the Environment
IWM	Institute and Waste Management
LA's	Local Authorities
LARAC	Local Authority Recycling Advisory Committee
LCA	Life Cycle Assessment <i>A systematic identification & assessment of the environmental costs & benefits, direct and indirect of a product or function throughout its entire life.</i>
LGA	Local Government Association
MBT	Mechanical Bio-Treatment
MEP	Member of the European Parliament
MO	Material Organisation
MRF	Material Reclamation Facility
MS	Member States
MSW	Municipal Solid Waste
NGO	Non-Government Organisation
NIEHS	Northern Ireland Environment and Heritage Service
NWAI	National Waste Awareness Initiative
OCC	Old Corrugated Cardboard
OECD	Organisation for Economic Co-operation and Development
Packaging	Products of any materials used for the containment, protection, handling delivery and presentation of goods, from raw materials, processed goods from the producer to the user or consumer
PERN	Packaging Export Recovery Notes <i>Documentary evidence providing a means by which obligated businesses can demonstrate compliance to the Packaging Regulations. Issued for packaging waste which is to be exported for reprocessing only.</i>
PET	Polyethylene terephthalate <i>A transparent, plastic-like substance increasingly used for the manufacture of beverage containers.</i>
PIMO	Paper Industries Material Organisation <i>(former MO for the paper industry)</i>
Primary/sales Packaging	Packaging that constitutes a sales unit to the final consumer or at point of purchase
PRN	Packaging Recovery Note <i>Documentary evidence providing a means by which obligated businesses can demonstrate compliance to the Packaging Regulations. Can only be issued by accredited reprocessors and for packaging waste reprocessed in the United Kingdom</i>
PRODCOM	Products of the European Community

Producer Responsibility	The concept whereby producers bare responsibility for the environmental impacts of their products beyond the boundaries of their organisation, through legal, economic or physical means.
Recovery	A means to obtain value from waste through recycling, composting, energy recovery or other forms of material recovery, i.e. anaerobic digestion
Recycling	The reprocessing of waste materials (in a production process) into products of their original purpose or for other purposes, including organic recycling, but excluding energy recovery
Reprocessor	A person who, in the course of conduct of trade, occupation or profession carries out activities of recovery or recycling
Reuse	Packaging that is designed to accomplish within its life cycle a minimum number of trips or rotations; it can be refilled or used again for the same purpose
RIA	Regulatory Impact Assessment <i>Is an evaluation of the potential impacts of options for amending regulatory legislation</i>
Secondary/ grouped Packaging	Packaging that groups a number of sales units; it may be sold to the consumer and can be removed from the product without affecting it's characteristics
SEPA	Scottish Environmental Protection Agency
Shared Producer Responsibility	Responsibility for recovering and recycling packaging waste is distributed/ shared between those economic operators that produce, use or handle packaging. A percentage recovery and recycling obligation is allocated by packaging activity
SIC	Standard Industrial Classification
SME's	Small-Medium sized Enterprises
TIMCON	Timber Packaging and Pallet Confederation
Transport/ tertiary Packaging	Packaging that facilitates the handling and transport of a number of sales units of grouped packaging. Excludes rail, road ship and air containers
Waste Hierarchy	A theoretical framework to guide the ranking of waste management options. Typically the most effective environmental options are ranked as; reduction, reuse, recycling and disposal, which is the least preferred option.
WCA	Waste Collection Authorities
WDA	Waste Disposal Authorities
WRAP	Waste and Resources Action Programme