



National Audit Office

Report

by the Comptroller
and Auditor General

**Department for Environment, Food & Rural Affairs and
Environment Agency**

The packaging recycling obligations

Key facts

64%

reported proportion of UK packaging waste recycled in 2017 against a target of 55%

Unknown **1 of 4**

range of uncertainty in reported packaging recycling rates

High-risk exporters subject to a compliance visit in 2017, a lower proportion than low-risk companies

11 million

government's estimate of tonnes of packaging used by UK households and businesses in 2017

7,002

companies that registered as having packaging obligations across the UK in 2017

£73 million

amount raised by the system UK-wide to help fund recycling of packaging waste in 2017

Sixfold

increase in exports of packaging material for recycling abroad between 2002 and 2017, with exports accounting for half of the packaging reported as recycled in 2017

124

compliance visits to recyclers and exporters carried out by the Environment Agency in 2016-17, against a target of 346

3

unannounced site visits carried out by the Environment Agency in 2017-18, covering 1.4% of accredited English recyclers and exporters

Summary

1 Reducing waste and using resources more efficiently are long-standing policy objectives for government. Tackling packaging waste is essential to achieving these ambitions: government estimates that UK households and businesses use around 11 million tonnes of packaging each year, which would imply packaging constitutes around 17% of total household and commercial waste. There is also growing public and scientific concern about the environmental and health impacts of pollution from plastic packaging, particularly because of plastic litter in the oceans.

2 This report examines the packaging recycling obligations, in response to a request from the Environmental Audit Committee. The government introduced these obligations in 1997, when it chose to establish a market-based system for incentivising recycling of packaging waste as part of implementing an EU Directive on packaging and packaging waste. The packaging regulations require companies that handle packaging (and that meet certain thresholds) to demonstrate that a certain amount of packaging has been recycled.¹ They do this by obtaining recovery evidence notes from UK reprocessing plants or from companies exporting waste for recycling abroad. Obligations apply across the supply chain, covering companies that make or sell packaged goods (such as supermarkets) as well as manufacturers of packaging. In 2017, 7,002 companies registered as having packaging obligations across the UK.

3 The system provides a financial incentive for reprocessors and exporters to increase packaging recycling rates to meet EU targets, and makes obligated companies responsible for contributing to the costs of recycling the packaging they put on the market. The regulations do not place a direct requirement on obligated companies to collect and recycle their own packaging. Instead, they allow for packaging to be collected as part of the normal management of waste in the UK, both by local authorities and commercial collectors, before being sorted and sold for recycling or disposed of through landfill or incineration. The regulations then allow accredited reprocessors and exporters to issue recovery notes for the amount of packaging they have recycled and to sell these notes to obligated companies. Prices vary according to supply and demand. In 2017, reprocessors and exporters received £73 million from obligated companies in exchange for recovery evidence notes.

¹ Companies are obligated if they handle over 50 tonnes of packaging a year and have a turnover of over £2 million.

4 Government has committed to reform the packaging recycling obligation system as part of developing a new strategy for waste and resources, which it expects to publish in 2018. This report identifies lessons from the management and performance of the system so far, and covers:

- the system's **purpose and performance** (Part One);
- government's approach to **tackling fraud and error** in the system (Part Two); and
- **government's wider oversight** of the system (Part Three).

5 Waste is a devolved matter, although the devolved administrations chose to implement the packaging recycling obligations as regulations that cover Great Britain, with equivalent legislation in Northern Ireland. This report examines the UK government's oversight of the system. It therefore covers the Department for Environment, Food & Rural Affairs (the Department), which is responsible for waste and packaging policy in England, and for monitoring of overall progress against the UK-wide packaging recycling targets, and the Environment Agency (the Agency), which is responsible for enforcing the regulations in England.

Key findings

Performance

6 Government figures indicate that the UK has achieved the overall packaging recycling target every year to date. Reported packaging recycling rates have increased from 31% in 1998 to 64% in 2017, exceeding the EU target of 55%. However, the increase is not solely due to the obligations; there are other policy measures that have influenced packaging recycling rates, including landfill tax which represents a more significant financial incentive (paragraphs 1.14 to 1.17).

7 However, the Department's estimates of packaging recycling rates are not sufficiently robust. The Department does not adjust its figures to account for undetected fraud and error. In order to determine the amount of packaging that is recycled each year, the Department uses the data that reprocessors and exporters report when claiming recovery notes. While the Agency does correct this data when it finds problems, we do not consider it is realistic to assume that undetected fraud and error is negligible: there is a financial incentive for companies to over-claim, and a particular risk that some of the material exported overseas is not fully recycled. In addition, its approach to determining the amount of packaging used in the UK involves complex methodology and a number of assumptions. Yet it has not established a regular, planned, and comprehensive programme for reviewing the analysis (paragraphs 1.3 and 1.18 to 1.21).

8 We are concerned that the reported recycling rate for plastic packaging could be overstated, although not by enough to undermine achievement of the overall target. Government figures assume that collections from the commercial sector increased by 150% between 2012 and 2016, but the Department has no reliable data to check whether commercial waste collections have in fact increased so quickly. The financial incentive for companies to fraudulently claim they have recycled plastic packaging is higher than for any other material, with recovery notes representing around 60% of the price of waste plastic bottles over the first six months of 2018. However, the actual plastics recycling rate would have to be zero to undermine achievement of the overall target, and be overstated by 24 percentage points to undermine achievement against the plastic-specific target. In April 2018, the Department asked WRAP to carry out a review of the amount of plastic packaging used in the UK, which has not yet concluded (paragraphs 1.22 to 1.24).

9 A recent ban by the Chinese authorities on certain waste imports could lead to a dip or decline in recycling performance. The increase in overall packaging recycling rates has mostly been due to a growth in exports: since 2002 the total amount of packaging waste exported abroad has increased sixfold while the total amount recycled in the UK has remained steady. Exports accounted for half of all packaging recycling subsidised through the system in 2017. China has been the single largest market for UK exports of packaging material for recycling, but in January 2018 the Chinese authorities banned imports from all countries of a number of waste materials citing concerns about high levels of contamination. This has disrupted global markets for waste. While data from the first quarter of 2018 suggest that the potential shortfall has mostly been made up by increased exports to other countries, it is not yet clear whether this can be sustained (paragraphs 1.14, 2.11 and 3.9 to 3.11).

10 Costs to business are low compared with schemes in other countries because UK taxpayers pay most of the costs of collecting packaging waste. Businesses paid £73 million towards the cost of recycling their packaging through the system in 2017. The Department reports that this is lower than the compliance costs that companies in a number of other European countries pay. It equates to a cost to business of 13 euros per tonne recycled, compared with costs to business of more than 48 euros per tonne in Germany, Belgium and the Netherlands. However, packaging schemes in these countries require companies to fully fund collections of household packaging waste. In the UK system companies only contribute indirectly to collection costs through payments for recovery notes. There are no publicly available data on the cost to local authorities of collecting and treating packaging waste, but the Department estimates that English local authorities spent £700 million (gross) on collecting and sorting packaging waste in 2017 (paragraphs 1.11 and 1.25 to 1.27).

Tackling fraud and error

11 There are risks of fraud and error in the system, and the Agency carries out a range of activities to help prevent and detect companies that break the rules.

The system relies on reprocessors and exporters self-reporting the amount of packaging material they have recycled or exported for recycling abroad. It also relies on obligated companies to identify for themselves whether they need to register. There are therefore risks that reprocessors and exporters over-claim, and that obligated companies do not know about their requirements or deliberately choose to avoid them. The Agency requires reprocessors and exporters that wish to issue recovery notes to apply for accreditation and renew it annually. As part of this process, companies must submit a plan for how they will check that the material they claim recovery notes on meets the rules. The Agency also carries out data analysis to help identify potential non-compliance, as well as compliance visits to reprocessors, exporters and obligated companies (paragraphs 2.2 to 2.4).

12 However, the Agency does not have a good understanding of the extent of fraud and error that remains despite its controls, to determine whether its approach is proportionate.

A robust compliance strategy should be based on a thorough understanding of the scale of potential risks of fraud and error. The Agency believes its approach is proportionate but it has not carried out an assessment of how significant different types of risk might be, and what the root causes of fraud and error are. The Department has not requested this analysis to inform its oversight. As a result, government does not know if it has the right scale, nature and balance of compliance activity (paragraphs 2.1 and 2.4).

13 We are concerned that the Agency does not have strong enough controls to prevent the system subsidising exports of contaminated or poor-quality material.

The Agency has low visibility and control over waste that is sold for recycling abroad and there is therefore a risk that some of it is not recycled under equivalent standards to the UK, and is instead sent to landfill or contributes to pollution. The export of contaminated or poor quality material increases these risks, and it is illegal to ship waste with significant levels of contamination. While the Agency has controls to help ensure the system only subsidises the export of good quality material to reliable operators, it is not clear that it yet does enough to tackle some significant sources of risk:

- municipal sorting facilities are one potential source of material for export, and some produce material with significant levels of contamination: the average contamination of plastic waste after having been through English municipal sorting facilities is 9.5%. Yet the Agency has not checked whether there are exporters in the system that ship this material without further sorting;
- the Agency is working with stakeholders to develop its understanding of the types of plastic waste that can be so poor quality that there is a known risk of a significant proportion of it being disposed of, rather than recycled, which it will use to target compliance checks; and
- in 2017 the Agency only made four queries to overseas agencies to check registration documents, compared with 53 queries in 2014 (paragraphs 2.8 to 2.12).

14 Compliance inspections are a key part of the Agency's approach to tackling fraud and error, and these have fallen well short of targets, and do not focus on exporters that the Agency knows to be high risk. Compliance visits are an important way for the Agency to check that reprocessors and exporters make accurate claims for the amount recycled. However, in 2016-17 the Agency carried out less than 40% of the number of compliance visits it planned to (124 visits compared with a target of 346). Moreover, it failed to use its own risk analysis work to target visits. Exporters it rated as high risk were less likely to receive a compliance visit than those rated low risk, and only one of four high risk exporters received a compliance visit in 2017. The Agency carried out only three unannounced visits in 2017-18 (representing 1.4% of accredited reprocessors and exporters), despite an internal audit report in 2015 having raised concerns about the number of unannounced visits (paragraphs 2.4 and 2.7).

15 The Agency has identified a large number of companies that may have an obligation to pay into the system but have not registered. It does not have a good understanding of how significant the financial risk could be. 'Free-riding' companies are those that have an obligation to pay into the system but do not register, either deliberately or in error. An analysis of the Agency's records for 2009-2016, triggered by our review, found 1,889 companies flagged as potential free-riders but with no follow-up recorded. If the proportion of actual non-compliance is similar to that in the potential cases that officers have reviewed, it would mean that 331 additional companies should be paying into the system, which would imply at least 4.5% of obligated companies do not register. The Agency considers that it has prioritised the most significant potential cases, but we are not convinced that its analysis is strong enough for it to be confident in this conclusion (paragraphs 2.13 to 2.18).

Government's wider oversight

16 The Agency recognises that its work on packaging has not been seen as a priority within the organisation, and is considering creating a new national team. In April 2017 the Agency commissioned an internal review to examine the reasons for poor performance across its non-site based waste regulations, including work on packaging. This found that the work was not generally viewed as a priority, that there was a lack of technical resource and resilience, and that activities carried out were significantly less than that funded and planned for. As a result the Agency is now considering moving away from an area-based approach and creating a national team for packaging work, in order to help prevent staff time being spread thinly across a range of different activities, and to help share and build expertise (paragraph 2.5).

17 The Department has not done enough to assess the wider effectiveness of the system.

The Department has carried out a number of reviews and consultations to inform changes to the packaging regulations and targets, which have assessed the potential impact of different proposals. However, although the system has now been operating for 20 years, it has only carried out one ex-post evaluation to assess the system's performance as a whole. Moreover, this evaluation was narrow in scope: it did not consider the total costs of dealing with packaging recycling, nor the extent to which the system brings additional benefits above other waste initiatives such as landfill tax. It also did not consider whether the system is maximising value for the money involved: the government has no evidence on whether the system has encouraged companies to minimise packaging or make packaging easy to recycle. The Department is currently reviewing the system as part of developing a new waste and resources strategy (paragraphs 3.14 to 3.16).

18 The Department has not been sufficiently proactive in managing the risks associated with the growth in exports of packaging waste for recycling overseas.

The Department identified in 2011 that there was a risk of fluctuations in the global market for waste, which could affect its achievement of waste targets, including for packaging recycling. However, it did not consider the specific risk that the long-term demand for waste exports could reduce as countries' domestic recycle increases. In addition, it concluded in 2013 that improving the quality of material was an important way to increase the resilience of waste industry. However, a key measure of success – the contamination levels of material from English municipal sorting facilities – has not improved since data started to be collected in 2014 (paragraphs 2.11 and 3.8 to 3.12).

19 The Department has established a good mechanism for consulting with stakeholders, but it is not clear whether it has used it to its full potential.

The Department established a stakeholder committee to advise on policy development for packaging recycling, bringing together representatives from trade bodies, compliance schemes, reprocessors and local authorities. However, it is hard to judge how effectively the Department has engaged with this committee as it does not consistently track how it has responded to its recommendations. We consider that the committee's influence may have been limited historically by a focus on day-to-day operational matters, though more recently the Department has asked it to engage with more strategic issues such as the future design of the system. Wider engagement with stakeholders has also been limited by poor communication about the system's purpose and a lack of transparent, useful data (paragraphs 3.3 to 3.7).

Conclusion

20 While there are questions about the exact scale of packaging recycling, it is clear that rates have increased over the lifetime of the packaging obligation system, and the system itself is likely to have made a contribution to this change. However, the system appears to have evolved into a comfortable way for government to meet targets without facing up to the underlying recycling issues. The government has no evidence that the system has encouraged companies to minimise packaging or make it easy to recycle. And it relies on exporting materials to other parts of the world without adequate checks to ensure this material is actually recycled, and without consideration of whether other countries will continue to accept it in the long-term. Despite it now being 20 years since the system was established, the Department does not know what value the system has added nor whether the Agency's approach to tackling the risks of fraud and error is proportionate. Our overall sense is that over a long period government has allowed the obligations to keep rolling forward without asking the important questions.

Recommendations

- 21** As government reforms the packaging recycling system it should:
- a** **Improve its approach to estimating packaging recycling rates.** It should allocate a senior responsible owner for the estimates within the Department, with this responsibility for analysis sitting separately from responsibility for performance. It should consult with industry and experts to determine an appropriate frequency for reviews of assumptions and methodology, and a process for ensuring that reviews happen as planned.
 - b** **Evaluate the scale of fraud and error within the system, including the extent of contamination in waste exports.** The Agency should use this evaluation to refine its approach to compliance. It should consider whether there are other actions it could take to prevent non-compliance as well as whether it can improve its approach to identifying and stopping problems once they arise. The Department should monitor estimates of non-compliance as part of its oversight of the system, and should ensure the analysis is reflected in its estimates of packaging recycling rates.
 - c** **Establish clear objectives for the reformed system, covering outputs and outcomes.** The Department should communicate these objectives clearly and consistently to stakeholders, and ensure that the evaluations are a rounded and robust assessment of the system's effectiveness in achieving these objectives.
 - d** **Understand how the system works alongside other interventions as part of a coherent waste strategy.** The Department should consider how the system interacts with other policy initiatives, such as landfill tax, and the extent of additional benefits it can and does bring.