

Title: The Waste Electrical and Electronic Equipment Regulations 2013 SI No: 2013/3113 Original IA/RPC No: BIS 0382 Lead department or agency: Defra Other departments or agencies: Environment Agency Contact for enquiries: Alexander.Child@defra.gov.uk	Post Implementation Review
	Date: 14/02/2020
	Type of regulation: Domestic
	Type of review: Statutory
	Date measure came into force: 01/01/2014
	Recommendation: Keep
	RPC Opinion: N/A Choose an item.

1. What were the policy objectives of the measure? (Maximum 5 lines)

The 2013 Waste Electrical and Electronic Equipment (WEEE) Regulations came into force on the 1st of January 2014. The objectives of the Regulations were:

- to ensure compliance with the recast WEEE Directive 2012/19/EU ('the WEEE Directive') which aimed to improve the efficiency and effectiveness of the original WEEE Directive by further protecting the environment as well as human and animal health; and
- to respond to the concerns expressed by UK electrical and electronic equipment (EEE) producers under the Red Tape Challenge about the cost of meeting their financial obligations under the 2006 WEEE Regulations (the Waste Electrical and Electronic Equipment Regulations 2006 (SI 2006 No. 3289, as amended by SIs 2007 No. 3454, 2009 No. 2957, 2009 No. 3216 and 2010 No. 1155)).

2. What evidence has informed the PIR? (Maximum 5 lines)

- Consultation summary and Government response to the 2017 consultation 'Waste electrical and electronic equipment: amending the 2013 UK Regulations', which was published in May 2018¹.
- Two Impact Assessments (IAs) accompanying the Government response to the implementation of the WEEE Directive and changes to the UK WEEE system².
- Correspondence from Producer Compliance Schemes (PCSs) and trade bodies.
- Compliance fee proposals submitted from 2014 to 2018 (summary of market information)
- Environment Agency statistical data sets³ and data reported by the UK to the European Commission.
- Regulatory Triage Assessment on Regulation 34 (http://www.legislation.gov.uk/ukxi/2018/102/pdfs/uksiod_20180102_en.pdf).
- Data from the PCS Balancing System (PBS) administrator, Anthesis.

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/709447/weee-consult-sum-resp.pdf

² <https://www.gov.uk/government/consultations/waste-electrical-and-electronic-equipment-weee-implementing-the-recast-directive-and-uk-system-changes>

³ <https://www.gov.uk/government/statistical-data-sets/waste-electrical-and-electronic-equipment-weee-in-the-uk>

3. To what extent have the policy objectives been achieved? (Maximum 5 lines)

- EU Member State collection targets have been met by way of setting household WEEE collection targets from 2014 onwards (Table 2), and gathering data on household and non-household WEEE financed by producers, supplemented by data from other sources.
- The compliance fee and household WEEE collection targets have been instrumental in decreasing cost of evidence and enabling costs correction of WEEE evidence.
- High compliance among UK based business.

Sign-off for Post Implementation Review: Chief economist/Head of Analysis and Minister

I have read the PIR and I am satisfied that it represents a fair and proportionate assessment of the impact of the measure.

Signed: ***Rebecca Pow***

Date: **29/01/2020**

Further information sheet

Please provide additional evidence in subsequent sheets, as required.

4. What were the original assumptions?(Maximum 5 lines)

The original assumptions were set out in two IAs accompanying the Government response to the implementation of the WEEE Directive and changes to the UK WEEE system. One was an Impact Assessment of the recast Directive 2012/96/EU⁴ on WEEE and the other an Impact Assessment of the UK WEEE System⁵.

A key assumption was that a compliance fee would be charged to individual PCS in the event that they did not meet their household WEEE collection target. The compliance fee would be set at a level that put a 'price ceiling' on the cost of evidence in order to restrict the risk that costs of collection and treatment paid by producers through PCSs was often much higher than the true costs of collection and treatment of WEEE. Within the Impact Assessment⁶ which accompanied the Government response to the implementation of the WEEE Directive and changes to the UK WEEE system, the central scenario assumed an additional 10% of WEEE tonnage of gas discharge lamps (GDLs), displays and cooling products would be funded through the compliance fee.

Photovoltaic (PV) panels come into scope with the introduction of the 2013 Regulations. It was assumed that 45% of PV EEE put on market (POM) would be collected as WEEE.

5. Were there any unintended consequences? (Maximum 5 lines)

The burdensome way in which Regulation 34 worked for local authorities and PCSs only became apparent after a number of operators had used the regulation 34 process. This led to the formation of a voluntary "PCS balancing system" (PBS), whereby the costs of collection of WEEE from designated collection facilities are shared by all PCS that chose to participate in the PBS.

6. Has the evidence identified any opportunities for reducing the burden on business? (Maximum 5 lines)

Mandating membership of a PBS approved by the Secretary of State, to ensure that all PCSs with household WEEE obligations share the costs of fulfilling regulation 34 requests and those in the voluntary system are not unduly burdened.

7. For EU measures, how does the UK's implementation compare with that in other EU member states in terms of costs to business? (Maximum 5 lines)

⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/249742/bis-13-1180-impact-assessment-recast-directive-201219EU-waste-electrical-and-electronic-equipment-weee.pdf

⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/249742/bis-13-1180-impact-assessment-recast-directive-201219EU-waste-electrical-and-electronic-equipment-weee.pdf

⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/249743/bis-13-1181-impact-assessment-waste-electrical-and-electronic-equipment-weee-system.pdf

The UK has implemented the WEEE Directive fully. The WEEE Directive aims to reduce the negative impacts on the environment as well as human and animal health (negative externalities) caused by the disposal of WEEE and it provides significant flexibility as to how it is implemented by Member States which has resulted in different methods for implementing the requirements. There is no evidence available to provide accurate cost comparisons between Member States. Further information on how other Member States have implemented the WEEE Directive are set out in the 'Comparisons with other Member States' section.

The Waste Electrical and Electronic Equipment Regulations 2013: Post Implementation Review 2019

July 2019

1. Background

The Waste Electrical and Electronic Equipment Recast Directive

- 1.1 The Waste Electrical and Electronic Equipment (WEEE) Directive (Directive 2002/96/EC) came into force on 13 February 2003. Directive 2003/108/EC amended the 2002 Directive with respect to the financing of WEEE from non-household users (8th December 2003) and it was further amended by Directive 2008/34/EC (11th March 2008).
- 1.2 The aims of the 2002 Directive were to “to contribute to sustainable production and consumption by, as a first priority, the prevention of waste electrical and electronic equipment, and in addition, the re-use, recycling and other forms for recovery of such wastes so as to reduce the disposal of waste and contribute to the efficient use of resources”. Additionally, implementation of the 2002 Directive aims to “improve the environmental performance of all operators involved in the life cycle of electrical and electronic equipment”.
- 1.3 The UK transposed the 2002 Directive into UK law as ‘The Waste Electrical and Electronic Equipment (WEEE) Regulations’ (SI 2006 No. 3289). These Regulations were amended by ‘The WEEE (Amendment) Regulations 2007’ (SI 2007 No. 3454) and ‘The WEEE (Amendment) Regulations 2009’, No 1 & 2 (SIs 2009 No. 2957 and No. 3216) and ‘The WEEE (Amendment) Regulations 2010’, (SI No. 1155).
- 1.4 The original Directive 2002/96/EC was recast as the WEEE Directive 2012/19/EU in July 2012. The purpose of the recast WEEE Directive was:
 - “to contribute to sustainable production and consumption by [...] the prevention of WEEE and [...] by the re-use, recycling and other forms of recovery of such wastes”
 - “to contribute to the efficient use of resources and the retrieval of valuable secondary raw materials”
 - “to improve the environmental performance of all operators involved in the life cycle of EEE” (Electrical and Electronic Equipment)
- 1.5 The WEEE Directive 2012/19/EU was transposed into UK law in 2013 and the 2013 WEEE Regulations entered force on 1st January 2014⁷. Key changes to the original Directive are set out below:
 - **Changes to the WEEE collection target.** Change in collection target from 4 kg per head to 45% of the weight of EEE put on market (POM) taken as an average of the preceding 3 years⁸ from 2016, rising to 65% of the weight of EEE POM as an average of the previous 3 years from 2019 (or 85% of WEEE arising from 2019). **To assist in achieving the higher WEEE targets, a protocol was established to**

⁷ http://www.legislation.gov.uk/uksi/2013/3113/pdfs/uksi_20133113_en.pdf

⁸ Averaged of three preceding years to allow for anomalies.

generate a methodology for calculating substantiated estimates of WEEE treated outside the official system, which will contribute to the overall target in addition to obligated⁹ and non-obligated¹⁰ WEEE.

- **Changes to recovery and recycling targets.** This included the introduction of recovery and recycling targets to an additional category of WEEE (LED lamp sources in category 13 / sub-set of EU category 5) and increasing recovery and recycling targets by 5% from 2015¹¹.
- **Inclusion of solar photovoltaic (PV) panels in category 4.** The UK Regulations carve out PV panels into a new cat 14.
- **Additional requirements that distributors (retailers) of EEE with a sales area relating to EEE of over 400m²** collect very small WEEE in store free of charge regardless of whether it is sold on a like-for-like basis.
- **Additional requirements for international shipments of used EEE and WEEE.**
- **The appointment of a legal authorised representative** in a Member State in which a producer sells EEE but does not have a place of business.
- **Moving to an ‘open scope’ categorisation of EEE in 2018.** As this requirement came into force in UK on 1st January 2019 it will not be covered in this review.

The Red Tape Challenge

- 1.6 The Red Tape Challenge was launched by the Government in April 2010. It gave business and the public the chance to have their say on the regulations that impact on their businesses. The Red Tape Challenge was split into themes; The Environment Red Tape Challenge was announced at Budget 2012 and committed the Department for Business Innovation & Skills to “rationalise environmental regulation, including by... consulting on preventing excessive compliance costs for business from the WEEE Regulations.”
- 1.7 A Call for Evidence was launched on 28 May 2012 following the Red Tape Challenge commitment. The Call for Evidence aimed to address concerns from many producers of EEE that the actual cost of compliance with their financial obligations set out in the existing 2006 WEEE Regulations were significantly higher than the true cost of collection, treatment, and environmentally sound disposal of WEEE that they were required to finance. The Government committed to consider regulatory changes to address these concerns by 2014.
- 1.8 As a result of the Red Tape Challenge, the Government introduced new regulations to tackle concerns by producers at the same time that the recast WEEE Directive was transposed. These were:

⁹ Obligated WEEE is separately collected household and non-household UK WEEE assigned to a producer compliance scheme (PCS) against which evidence notes can be issued.

¹⁰ Non-obligated WEEE is any WEEE entering approved authorised treatment facilities (AATFs) or exported by authorised exporters that was not delivered by/on behalf of a PCS or local authority designated collection facility (DCF) (e.g. direct from a business) and therefore does not have a producer obligation placed on it or evidence issued against it.

¹¹ For a breakdown of targets per category prior to 2015 and after 2015, see Annex V of the recast WEEE Directive 2012/19/EU here: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012L0019>.

- **Provision for setting household collection targets and establishing a compliance fee.** The 2013 WEEE Regulations require the Secretary of State to set the target tonnage of household WEEE collections falling within each category of EEE that is to be financed by producers each year via their membership of a Producer Compliance Scheme (PCS). The compliance fee is an alternative form of compliance for PCSs that do not physically achieve their household WEEE collection target. The introduction of a compliance fee provided an alternative to buying surplus WEEE “evidence” from other PCSs – this was intended to reduce inflated secondary trading that had become apparent under the system established under 2006 WEEE Regulations, whereby PCSs obtained evidence for the sole purpose of selling at higher costs to other PCSs.
- **Provision to ensure that Local Authority operated Designated Collection Facilities (DCFs) are guaranteed that a PCS will finance the cost of collection and treatment of WEEE** deposited at sites, even if all PCSs have met their collection targets or do not choose to take on a contract (set out in regulation 34).
- **Provision for Designated Collection Facilities (DCFs) to choose to take control of arranging collection and treatment of one or more value streams¹² without the need to contract with PCSs**, thereby ensuring all value is retained by the collector (i.e. the local authority)¹³.
- **The introduction of a *de minimis* threshold**, whereby small producers (defined as those which placed less than 5 tonnes of EEE onto the market during the preceding compliance period), are not required to join a PCS, but alternatively can register directly with an environment agency (the Environment Agency (EA) for England, Natural Resources Wales (NRW) for Wales, Northern Ireland Environment Agency (NIEA) for Northern Ireland or Scottish Environment Protection Agency (SEPA) for Scotland) to submit data¹⁴.

1.9 The focus of this post implementation review will be on the Regulations that were newly introduced on 1st of January 2014 to comply with the recast WEEE Directive and in response to the Red Tape Challenge.

¹² The UK currently has a system of 14 categories of EEE which was established to reflect the 10 categories under the WEEE Directive, with an additional 4 sub-categories, to comply with treatment requirements due to the hazardous nature of the WEEE being treated. The 14 categories of WEEE are collected in six value/collection streams: large domestic appliances (LDA), cooling equipment, display equipment, lamps, small mixed WEEE (SMW - comprises categories 2 – 10) and photovoltaic panels.

¹³ The local authority must inform Defra that they are not contracting with a PCS for a particular value stream. Local authorities must then be responsible for that value stream(s) for the whole compliance year – they cannot pass on the responsibility to PCSs in that same year. The intention of this regulation was to give local authorities the opportunity of controlling WEEE streams that generate a net value.

¹⁴ <https://www.gov.uk/guidance/electrical-and-electronic-equipment-eee-producer-responsibility>

2. Assessment of regulations using evidence from industry

- 2.1 We consulted with industry during 2017 regarding the extent to which the 2013 WEEE Regulations objectives had been achieved. To inform this next section, we have used evidence from responses to the consultation which was summarised and published as part of the Government's response¹⁵ (key stakeholders were consulted including producers of EEE, PCSs, distributors, trade bodies, local authorities, WEEE treatment facilities, waste management companies, charities and social enterprises and electrical re-use organisations). Additional evidence has been obtained through further correspondence with industry stakeholders, and data published by the Environment Agency (EA). The following section examines the effectiveness of each regulation individually that was introduced in the 2013 WEEE Regulations.
- 2.2 Combined, the IAs projected that the measures would result in total savings to businesses of £1.7m per year. This saving was assumed to be driven by reduced regulatory burdens on businesses and gate fee revenues raised for collectors of WEEE managing value waste streams. However, due to the commercially sensitive nature of these savings – as well as other costs/savings that contributed towards the predicted net saving of £1.7m/year – we have been unable to complete a comprehensive review of the total savings to businesses.
- 2.3 The evidence provided by industry has however, enabled us to review the success of the reforms against the following policy objectives: the extent to which EU Member States collection targets have been met, the extent to which cost-correction of evidence has been enabled, and the extent to which compliance amongst UK businesses has increased.

Changes to the WEEE collection target, including the introduction of substantiated estimates.

Table 1 (A) The difference between projected baseline EEE POM and actual EEE POM (tonnes). (B) The difference between projected baseline collections and actual collections (tonnes). **(B) shows that the initially projected tonnage of WEEE collections in the baseline (without reform to the WEEE Regulations), were generally much lower compared to the actual collected tonnages following the implementation of the 2013 WEEE Regulations. This suggests that the reform succeeded in its objective to increase the amount of collected tonnages of WEEE. In 2018 the actual tonnage of EEE POM and actual tonnage of WEEE collected was less than the respective projected baseline data. We expect that this is due to an overestimation of the baseline projected growth. The baseline projected growth rate did not sufficiently take into account the reduction in unit weight of EEE POM over time. In addition, the baseline projection did not forecast changes in UK economic growth, which is expected to impact the tonnage of EEE POM. Between 2014-2018 UK economic growth fell steadily from 2.9% to 1.4%¹⁶ - this fall in growth is reflected in the fall in actual EEE POM growth in table 2. Data published by the Environment Agency in Table 2 EEE POM and WEEE collections from 2014 to 2018. Data was published by the Environment Agency - it has not been adjusted to include substantiated estimates of large domestic appliances collected with scrap metal and recycled outside the WEEE system.**

- 2.4 shows that the UK has exceeded its Member State WEEE collection target since the introduction of the 2013 WEEE Regulations.

¹⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/709447/weee-consult-sum-resp.pdf

¹⁶ <https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/ihyp/pn2>

2.5 It is important to note that there is a significant difference in the POM values between projected data in the baseline (Table 1) and actual reported data in Table 2.

Table 1 (A) The difference between projected baseline EEE POM and actual EEE POM (tonnes). (B) The difference between projected baseline collections and actual collections (tonnes).

A)				B)		
	Initially projected POM (baseline)	Difference between projected POM and actual POM (tonnages)	Difference between projected POM and actual POM (%)	Initially projected collections (baseline)	Difference between projected collections and actual collections (tonnages)	Difference between projected collections and actual collections (%)
2014	1,554,503	+116,674	+8%	545,400	+95,165	+17%
2015	1,573,558	+195,606	+12%	549,374	+113,091	+21%
2016	1,593,562	+148,436	+9%	556,754	+158,881	+29%
2017	1,614,521	- 497	0%	563,899	+86,827	+15%
2018	1,636,441	-90,786	-6%	570,472	-7,800	-1%

Source: Initial projections were set out in the Impact Assessment modelling and the differences determined using EA data sets¹⁶.

Table 2 EEE POM and WEEE collections from 2014 to 2018. Data was published by the Environment Agency¹⁷ - it has not been adjusted to include substantiated estimates¹⁸ of large domestic appliances collected with scrap metal and recycled outside the WEEE system.

	2014	2015	2016	2017	2018
POM	1,671,177	1,769,164	1,738,678	1,614,024	1,545,655
Previous 3 Year Average of EEE POM	1,434,656	1,513,496	1,627,826	1,726,340	1,707,289
Collection Target (changed from 2016)	4kg per capita/per head of population	4kg per capita/per head of population	45% of average EEE POM over previous 3 years	45% of average EEE POM over previous 3 years	45% of average EEE POM over previous 3 years
Total household collections (tonnes)	491,880	522,402	580,257	525,079	493,323
Total non-household Collections (tonnes)	13,974	7,994	9,594	9,255	7,939
Non-obligated collections (tonnes)	134,811	132,069	126,999	118,592	61,409
Substantiated LDA^a estimate^b		273,000*	212,000	218,000	NA

¹⁷ <https://www.gov.uk/government/statistical-data-sets/waste-electrical-and-electronic-equipment-weee-in-the-uk>

¹⁸ The methodology for calculating substantiated estimates can be found here:

<http://www.wrap.org.uk/content/weee-flows-report> and <https://www.valpak.co.uk/information-zone/reports/valpak-flow-reports>

Total collections - HH, NHH, non-obl, Sub est (non-obl LDA deducted) (tonnes)	640,665	935,465	928,850	870,926	NA
Total collections (as kg/head of population)	8.17kg/per capita per head of population	8.54kg/per capita per head of population	NA	NA	NA
Percentage of total collection against 3 year average weight POM each year (%)	NA	NA	57%	50%	NA

^a Large domestic appliances.

^b Substantiated estimate data not available and not reported to the Commission for 2014. Substantiated estimates do not include non-obligated LDA.

* LDA being treated within the light iron stream in 2015 as set out in the WRAP report published in 2016.

- 2.6 The EA has a programme of compliance monitoring of both EEE producers and approved treatment operators. A key component of this compliance activity is to assess the accuracy of reported data. In the case of EEE producers and anomalies identified through compliance monitoring will be required to be corrected. Similarly treatment operators' anomalies are corrected in their quarterly reporting of data. Where the data anomalies relate to the issuing of evidence against WEEE received, the EA has the option to suspend the operator pending the correction of the data. The volume of data submitted to the EA is significant, for example EEE producers are required to report data across 14 categories for each of household and non-household EEE. The EA compliance monitoring programme includes both desk-based and site-based assessments. As part of the EA compliance monitoring programme the EA track trends and changes in the issuing of WEEE evidence to help inform our risk based approach to compliance monitoring to tackle fraud.
- 2.7 Treatment operators are required to set out, as part of their approval, how they will manage and assess WEEE entering their site. This will include how they will manage non-obligated WEEE as well as contamination. For some WEEE streams this process of assessment has been eased by accepting a protocol arrangement. Such arrangements relieve the operator of undertaking assessments of every incoming load and allow that to apply standardised percentages to the incoming load to determine, obligated, non-obligated and contamination levels.
- 2.8 The substantiated estimates protocol was established by WRAP in 2016 based on 2015 as the baseline year. Based on the report we estimate that between 250k and 273k tonnes of large domestic appliances (cookers, washing machines etc.) are collected with scrap metal and recycled outside the producer financing system every year.
- 2.9 An updated report on substantiated estimates was published by Valpak in 2018 with updated data. As part of work funded with the WEEE Compliance Fee fund¹⁹ a study of the EEE and WEEE flows in the UK has been commissioned. It is not yet complete but could lead to updates to the substantiated estimates protocol in the future.
- 2.10 The total WEEE collected set out in Table 2 includes household and non-household WEEE, substantiated estimates of large domestic appliances (cookers, washing machines etc.) collected with scrap metal and recycled outside the WEEE system (substantiated

¹⁹ <https://www.weeefund.uk/>

estimates) and data from recyclers on other WEEE recycled on a commercial basis outside the producer financed system (non-obligated WEEE). The data show that the UK has achieved the WEEE targets set out in the recast WEEE Directive since the 2013 WEEE Regulations came into force. The weight per head of population was exceeded in 2014 and 2015. Since the introduction of the Member State WEEE collection target of 45% of weight of EEE POM averaged over the three previous years has been exceeded in 2016-18. The decision to use substantiated estimates to estimate collections of large domestic appliances (LDA) in the scrap metal waste stream has successfully contributed to reaching EU Member State collection targets. It has avoided the need to place new reporting obligations on all scrap metal dealers that receive LDA for treatment.

- 2.11 The Recast IA stated that *“there are a number of other reasons that the amount of EEE sold does not necessarily reflect the total amount of WEEE arising. For example: Not all new EEE is bought as a replacement for old EEE; the weight of new EEE may not be the same as the EEE that it may be replacing; new EEE can have different lifespans to EEE that is currently available. This may especially be relevant with some of the additional EEE that will be included resulting from the WEEE Recast”*.
- 2.12 Table 2 shows that the total collections have increased overall between 2014 and 2017. The rate of collection and treatment of WEEE has increased as a result of the 2013 WEEE Regulations and not just as a result of more EEE being placed on the market. However Table 2 shows that the total collection rate (against the same year tonnage POM) between 2014 and 2018 does not show a steady trend of increasing collection rates following the implementation of the 2013 WEEE Regulations – this is predominantly due to changing market conditions and consumer habits. There are a wide variety of factors that influence the collection rates aside from introduction of regulations or changes to policy such as product longevity, the weight of products placed on the market today compared to the average weight over the previous 3-year, and consumer habits and technological developments meaning that new EEE not necessarily replacing old EEE and new EEE having different lifespans to old EEE.

Inclusion of solar PV panels as EEE

- 2.13 Photovoltaic panels entered scope on 1st of January 2014. In 2015, 114,000 tonnes of photovoltaic panels were placed on the market. PV panels have long life-expectancies and thus their introduction to the market has skewed collection rates as very few photovoltaic panels have entered the system as waste so far and therefore the collection rate for PV panels is very low. In 2018 the EA reported just 87 tonnes of photovoltaic panels being collected for treatment.
- 2.14 EA data shows that PV panel collections were 95, 99 and 87 tonnes in 2015, 2016, and 2018 respectively. This is much lower than the IA proposed would be collected (Table 3).

Table 3 Predicted PV WEEE separately collected.

	2014	2016	2019	2025
PV WEEE separately collected (tonnes)	144	272	458	1,568

- 2.15 The amount of PV panels placed on the market in a given year is influenced by wider Government policy and incentives around investing in renewable energy sources. Since PV

panels were successfully introduced as a new category of EEE in the WEEE Regulations, there have been a significant decline in volumes placed on market between 2014 and 2018. See Table 4.

Table 4 Actual PV POM and WEEE separately collected.

	2015	2016	2017	2018
PV EEE POM	114,327	49,410	34,309	19,205
PV WEEE separately collected (tonnes)	95	99	106	87

2.16 Typically, PV panels have a 20+ year life expectancy, which is significantly higher than other EEE placed on the market, and this is therefore reflected in the amount of PV panels collected as WEEE which are a very low percentage (0.25%) of what is being put on the market (2018 collection rate against the three-year average POM figure).

2.17 The tonnage of PV panels collected per year is only a very small percentage (0.25%) of PV panels POM thereby making achievement of the EU Member State target more challenging. Most returns to date have been faulty/warranty returns.

Changes to recycling and recovery targets

2.18 In the UK, approved authorised treatment facilities (AATFs) must apply for approval on an annual basis, and as part of this supply information on the annual rates of recycling and recovery of WEEE to the environment agencies. Table 5 below shows the aggregates of recycling and recovery data submitted by AATFs in tonnage amounts and the rates achieved against the total EEE POM for each year. Desk based assessments are undertaken on all submissions to assess levels of clustering around rates for specific WEEE streams and in doing so identify outliers. On a risk based approach submitted data is then checked as part of the site based compliance monitoring programme. Recycling and recovery data is used to report to the European Commission and published on Eurostat.

Table 5 Recycling and Recovery total WEEE tonnages/rates compared to targets for 2014-16.

	2014	2015	2016
POM	1,671,177	1,769,164	1,741,998
Total recycled (tonnes)	420,612	536,580	792,408
Total recycled (%)	80.6%	80.9%	81.6%
Total recovered (tonnes)	456,841	563,759	846,847
Total recovered (%)	87.5%	85%	87.2%

Source: Eurostat.

Further information relating to recycling and recovery targets for all WEEE categories can be found in Table A1 and Table A2 in Annex A.

2.19 We consulted with industry on whether the levels of WEEE recovery, recycling and re-use had increased in the UK since the 2013 WEEE Regulations had been introduced. Overall, there were a mixture of responses from stakeholders as to whether rates had increased since 2014. Some of these responses also covered information relating to WEEE collection rates which are a separate issue. We have therefore tried to separate the responses and have included the evidence supplied on collections in the section on changes to the WEEE collection target, including the introduction of substantiated estimates. The majority of stakeholders that responded to the consultation (60%) agreed that the 2013 Regulations had a strong or a high impact on the recycling, recovery and re-use levels of WEEE²⁰. Charities and waste management companies stated in the consultation that the impact of the 2013 WEEE Regulations on the rates of WEEE recovery, recycling, and re-use were low. The majority of PCSs, local authorities, distributors, treatment facilities and trade bodies that responded provided neutral answers on this point, stating the Regulations had a 'moderate impact'.

2.20 Table 5 shows significantly increased amounts of WEEE recycled and recovered (tonnage) but very stable rates (percentage of WEEE collected). Following the China plastics ban exporters have identified other overseas markets for many material types. At this stage we are not seeing an impact of the recycling and recovery rates. However, this needs to be kept under constant review as other destination countries are starting to raise their standards and/or impose restrictions on waste imports.

Additional requirements for retailers of EEE with a sales area relating to EEE of over 400m²

2.21 Under the recast WEEE Directive, distributors and retailers of EEE with a sales area relating to EEE of over 400 m² have an obligation to collect very small WEEE in store free of charge regardless of whether it is sold on a like-for-like basis. Under the UK WEEE Regulations, distributors and retailers have the option to join the Distributor Take-back Scheme (DTS) instead of providing a take back service. They can pay a fee that covers their WEEE obligations (currently until the end of December 2019). The fee depends on how much EEE they sell and the money goes towards supporting the local authority DCF sites. There are currently 1,217 members of the DTS.

2.22 One major supplier of EEE sits outside the DTS as it has always had a policy to take back WEEE in store.

2.23 Since the 2013 WEEE Regulations came into force, the additional requirement for retailers has not had a material impact on WEEE collections (i.e. has not lead to an increase) as the majority of retailers to which the requirement relates were already members of a DTS and the major retailer not partaking in the DTS has always offered take-back without the requirement to buy an item of EEE (0 to 1 take-back).

Additional requirements for international shipments of used EEE and WEEE.

²⁰ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/709447/weee-consult-sum-resp.pdf

- 2.24 The 2013 WEEE Regulations introduced additional requirements for international shipments of used EEE and WEEE.
- 2.25 The EA is active in identifying illegal waste exports and has a programme of compliance activity to undertake this. As part of this programme the EA undertakes port inspections of containers to assess their compliance with waste export controls. This area of work is intelligence led and will use a range of information sources to target suspected illegal exports. No WEEE operator is currently approved to export WEEE as whole appliances for re-use. Thus all exports will be of WEEE derived materials, plastics metals etc. There are no operators in the UK who need to demonstrate compliance with the additional requirements as we do not have anyone exporting whole WEEE appliances.
- 2.26 Part of the 2017 and 2018 WEEE Compliance Fee fund is being spent on a report to determine Unreported WEEE Flows in the UK²¹. This project will include gathering data on illegal export of WEEE which leaves the UK for reuse or recycling outside of the UK and is not compliant with the 2013 WEEE Regulations and will provide qualitative data on illegal exports.

Introduction of authorised representatives

- 2.27 Producers based in other countries must either appoint an authorised representative based in the UK or join a UK approved PCS, before putting EEE on the UK market. This must be done in time for the relevant compliance period. This was intended to ensure that internet sellers based outside the UK are registered as producers in the UK.
- 2.28 Responses to the consultation regarding the effectiveness of authorised representatives in addressing the challenge of ensuring international internet sellers are registered as producers in the UK were mostly analogous across all stakeholder groups. The majority of stakeholders (73%) stated in their consultation responses that there was very little/no effect of the introduction of authorised representatives. A large number of stakeholders stressed that the total number of appointed authorised representatives in the UK since 2013 has been very low. It was noted that some overseas producers have chosen to register with UK PCSs thus mitigating the need to appoint an authorised representative. Many respondents, in particular producers, PCSs and trade bodies, stated that the low uptake of authorised representatives has in turn led to producers subsidising the compliance costs of WEEE 'free-riders', which has increased producer costs.
- 2.29 There are 13 authorised representatives in the UK. These are all for small producers, and none are registered with a PCS.
- 2.30 Feedback from stakeholders and data from the EA suggest that the introduction of authorised representatives have had little or no effect on addressing the challenge of international internet sellers free-riding. In the Resources and Waste Strategy for England²² the Government has committed to consult on possible reforms to the WEEE regime and will explore options for tackling the growing numbers of internet sellers who do not meet their obligations as part of this review.

Provision for setting household collection targets and establishing a compliance fee

²¹ <https://www.weeefund.uk/>

²²

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resource-s-waste-strategy-dec-2018.pdf

2.31 When asked through the consultation to what extent the 2013 WEEE Regulations had addressed concerns arising from producers, overall comments showed a broad agreement that the Regulations have significantly tackled the disproportionate costs producers had to pay under the previous 2006 WEEE Regulations.

2.32 The majority of respondents (54%) to the consultation said that the 2013 WEEE Regulations, specifically the introduction of the WEEE compliance fee and collection targets, were instrumental in facilitating costs correction so the amount producers have to pay through PCSs are now aligned more closely to the true costs of collection and treatment of WEEE. Evidence from one PCS obtained through further correspondence (Figure 1) shows that the costs of evidence have tended to fall since 2013 and stakeholders have indicated that this is a more accurate reflection of the true costs of managing WEEE.

2.33 One stakeholder responded to the consultation stating that “the premium of the price for external evidence over the internal costs of transport and treatment reduced dramatically from, on average, around 70-80% to around 10-20%”. However, some PCSs noted that in some of the EEE categories, positive cost adjustments were not seen, for example in LDA. This statement is not supported by the evidence presented in Figure 1, however, Figure 1 present evidence from one PCS, and is not representative of the market as a whole.

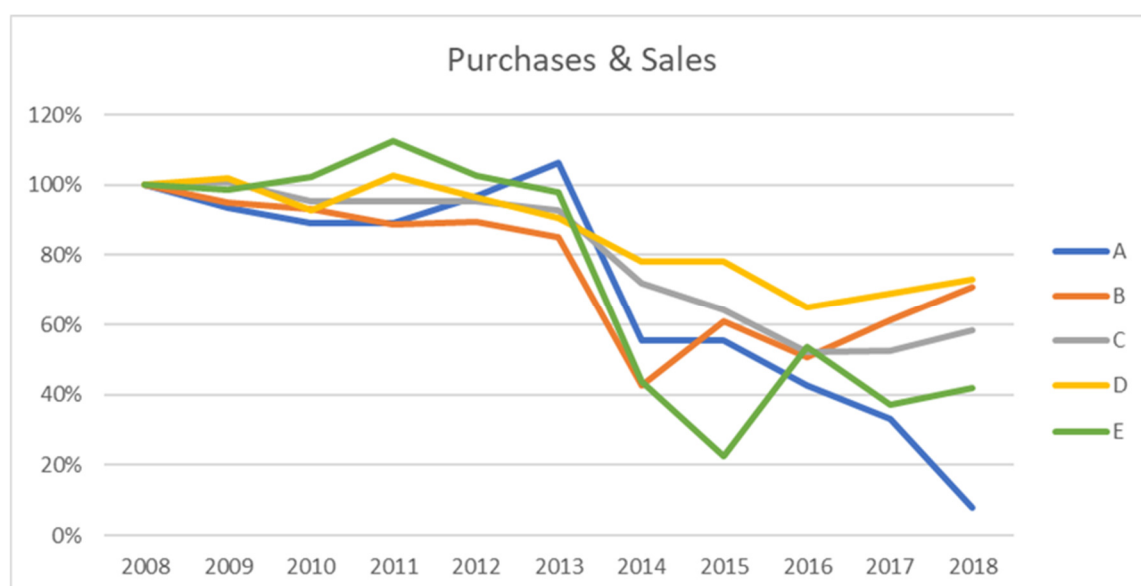


Figure 1 The weighted average of sale and purchase prices for evidence from one PCS²³. The relative cost is calculated by normalising to 100 in 2008. A) Large Domestic Appliances, B) Cooling, C) Display, D) Lamps, E) Small Mixed WEEE.

Figure 2 below shows the historical evidence prices but sets this trend against two other data sets, metal prices and targets.

²³ Note this figure is only data from one PCS – it is not a representation of market conditions as a whole.

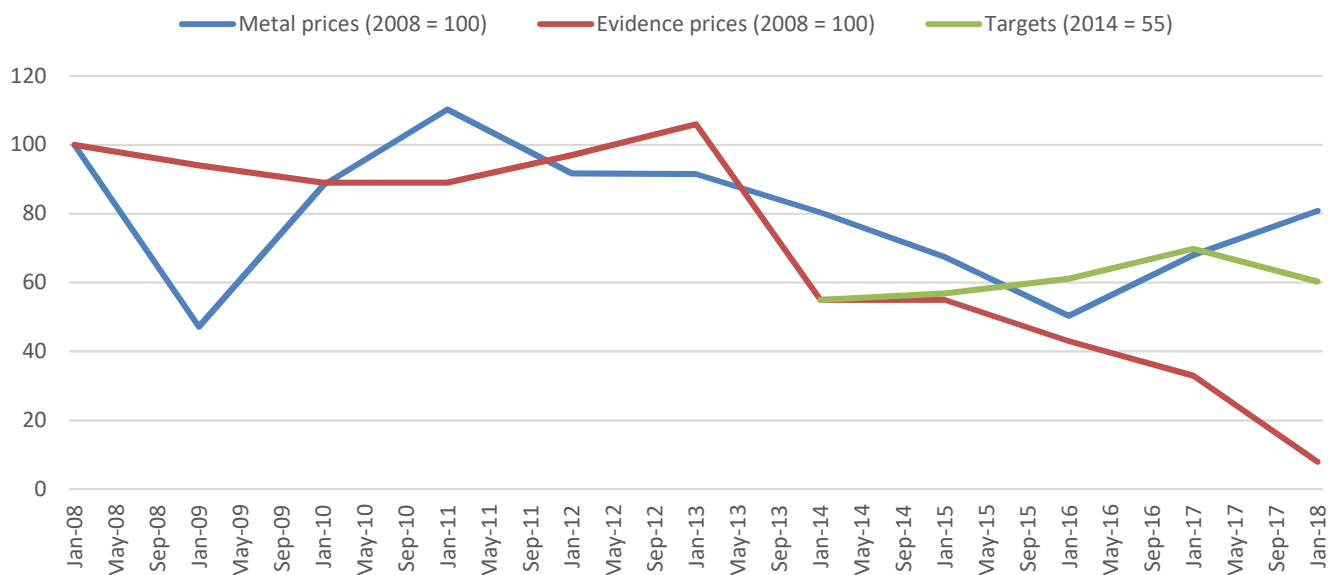


Figure 2 Average evidence prices (normalised) charged to producers by PCS (£/tonne). Here LDA has been used as a ‘proxy’ for evidence prices. Historical evidence prices (red) against metal prices (blue) and targets (green).

Metal prices:

2.34 As the commodity price falls the expectation is that reprocessors (undertaking recovery and/or recycling of WEEE) will charge more for evidence as they will try to compensate their reduced income through selling evidence of recycling at a higher price. Comparing the trends in Figure 2 we can see that this trend has been challenged - and in fact falling commodity prices have coincided with falling prices of evidence. This can partly be attributed to the 2013 WEEE Regulations, in particular the introduction of a compliance fee, a legitimate form of compliance that producers pay if they do not meet their household WEEE collection target. This put a ‘price ceiling’ on what reprocessors charged for evidence.

Targets:

2.35 The 2013 WEEE Regulations have challenged another expected trend – the trend that higher targets lead to higher costs of evidence. When the WEEE collection increases, producers demand more evidence for recycled WEEE to meet this higher target, in turn reprocessors respond to this increase in demand by pushing up prices of evidence as they know that the market demand is strong enough for producers to accept higher prices. As shown in Figure 2 the total WEEE collection targets increased between 2014 and 2017 – in the same time period, Figure 1 shows that the costs of evidence fell. This shows that even in the event of higher targets the 2013 WEEE Regulations were highly effective in keeping the costs of evidence to a reasonable level.

2.36 Suggestions presented in the consultation for further cost re-alignment of collection and treatment costs, included taking regulatory action to address “free-riding” by non-compliant distance sellers and preventing illegal WEEE operations.

2.37 A criticism of the compliance fee from treatment facilities through the consultation was that the Regulations led to a number of PCSs choosing not to renew their contracts, and utilising the compliance fee as an alternative to meeting their WEEE recycling obligations.

2.38 The IA assumed an average growth rate in the baseline cost of evidence of 2.3% for each material. This baseline assumption is in contrast to actual cost of evidence data supplied

by one stakeholder following the implementation of the regulations – shown in Figure 1 above. Figure 1 shows an overall fall in the cost of evidence rather than an increase. We acknowledge that data provided by a single stakeholder lacks complete robustness but this overall downward trend in the cost of evidence has been supported by qualitative responses from stakeholders.

Regulation 34

- 2.39 Regulation 34 permits the local authority DCF operator to require any PCS with financing obligations to arrange for the collection and treatment of deposited WEEE, subject to a condition that there is no contract in place between the DCF operator and any PCS for the collection and treatment of WEEE in the relevant collection stream. Regulation 34 ensures that even if all PCSs have met their collection targets (and therefore choose to decline to enter a contract with a DCF operator) the DCF operator can still ensure that a PCS finances the collection of WEEE deposited at its DCF.
- 2.40 The intention was to allow a system to be established under which PCSs that choose to join the system would be able to minimise commercial risks of being forced to collect WEEE in excess of their target amount. Specific provision was not included in the WEEE Regulations, instead the voluntary PCS Balancing System ('PBS') was set up in August 2016 up by the majority of PCSs to ensure the costs of fulfilling regulation 34 requests would be distributed on an equitable market share basis across all PCSs that chose to join. This has reduced the financial risks to PCSs of being required to finance the collection of regulation 34 requests when the tonnage was not needed in order for that PCS to achieve its collection targets.
- 2.41 Some PCSs raised concerns in their responses to the consultation, that the redistributed costs under the voluntary Producer Balancing System (PBS) have been higher than the true costs of WEEE collection and treatment due to non-membership of schemes to PBS, with costs ultimately passed on to producers.
- 2.42 The 2018 amended WEEE Regulations make membership for all PCSs of the PBS mandatory, and requires the Secretary of State to approve such a PBS. This came into force in January 2019.

Designated Collection Facilities (DCFs) can choose to take control of arranging collection and treatment of one or more value streams²⁴ without the need to contract with PCSs

- 2.43 Under the 2013 WEEE Regulations, DCF operators have the option of retaining WEEE arising at the local authority DCF sites and take control of the collection and treatment rather than contracting with PCSs. It was expected that self-treatment of WEEE by DCFs would require advance planning and an element of risk taking. A fluctuation in material values during the course of a compliance period could occur, leaving the LA to fund the treatment of WEEE that had moved from a positive value to a negative value. Local authorities must inform Defra if they want to retain responsibility for clearance of one or

²⁴ The UK currently has a system of 14 categories of EEE which was established to reflect the 10 categories under the WEEE Directive, with an additional 4 sub-categories, to comply with treatment requirements due to the hazardous nature of the WEEE being treated. The 14 categories of WEEE are collected in six value/collection streams: large domestic appliances (LDA), cooling equipment, display equipment, lamps, small mixed WEEE (SMW - comprises categories 2 – 10) and photovoltaic panels.

more WEEE collection streams and arrange your own treatment ensuring that it is legally transported and treated by an AATF for re-use or recycling. Only a few local authorities choose to retain responsibility for LDA.

The introduction of a *de minimis* threshold

- 2.44 Producers placing less than 5 tonnes of EEE on the market in a compliance period are defined as small producers. Small producers do not have to join a PCS but can register directly with one of the environment agencies and supply data annually on how much EEE they have placed on the market. They do not have obligations to finance household WEEE.
- 2.45 In response to the consultation (and through correspondence), a number of PCS commented that the 5 tonne *de minimis* threshold for small producers has not been reviewed since the WEEE Regulations came into force, and members were concerned that this will result in increasing levels of non-compliance and under-reporting. They felt that compliant producers are likely to be paying more for their WEEE as a consequence of those who under-report. They suggested a review, and possibly reducing the 5 tonne threshold, at least for higher cost streams.

Table 7 The total number of registered producers and the total EEE POM by small producers in 2011 and 2017.

	2011	2017
Total registered as small producers	3420	3256
Total EEE POM by small producers (tonnes)	3,348	3,545
% of total EEE POM (%)	0.23%	0.21%

- 2.46 Producers and PCSs have suggested that a reduced limit should apply for lamps. The rationale for this is that lamps are costly to recycle compared to other WEEE and that 5 tonnes represents a large quantity of lamps. Nevertheless, no compelling evidence has been put forward to support lower limit.
- 2.47 Additionally, since the WEEE Regulations came into force, the number of producers placing small amounts of EEE on the market (less than 5 tonnes) has remained stable, as has the amount of EEE they have placed on the market. In 2011, small producers accounted for 0.23% of all household EEE POM, whereas in 2017, after the introduction of the WEEE Regulations, they accounted for 0.21%. This suggests that the current *de minimis* threshold of 5 tonnes is still at an appropriate level.

3. Industry assessment of market conditions

- 3.1 As part of compliance fee proposals, stakeholders provide an assessment of the market conditions in the previous year. The following information on market conditions year on year since the 2013 WEEE Regulations came into force is taken from compliance fee proposals submitted by the Joint Trades Association (JTA) and Valpak.

2014 and 2015

- 3.2 The WEEE market operated effectively during this period; collection targets were exceeded in 2014 and in 2015, and local authorities were able to contract with PCSs to collect WEEE from DCF sites. The market became more competitive as PCSs were no

longer able to make inflated profits as a result of the introduction of the Compliance Fee in 2014. The Compliance Fee fund effectively dealt with a market that previously relied on profiteering from inflated evidence prices; the Fee was £375,000 in 2014 and fell to £27,000 in 2015, indicating that the compliance fee was a contributing factor to reducing inflated costs of evidence. There was also an increase in collection rates from 2014 to 2015 after the compliance fee was implemented.

2016

- 3.3 The WEEE collection market saw an excess in supply of WEEE in four of the six streams during Q2 of 2016. The total of the collection targets set for PCSs were exceeded by around 7%, but shortfalls occurred in the Lamps.
- 3.4 The demand for particular WEEE streams was affected by changes in commodity prices. The net costs of a given stream depend upon costs of treatment and collection, and, to differing degrees, global commodity prices. Since the compliance fee was introduced, there was a fall in global commodity prices. This reduced the profit that could be earned from processing certain WEEE streams, such as Large and Small Domestic Appliances (streams A and E).
- 3.5 New guidance on dual-use²⁵ WEEE came into force in 2015. The change in definition enabled collections of non-household WEEE to count towards household collection targets of items which are similar to that which is sold to householders e.g. ICT equipment, TVs and lamps – so called “dual-use” equipment. This meant collectors were able to charge businesses for the collection of dual-use WEEE, but also sell the evidence to PCSs. This led to cheap evidence prices as collection and treatment costs would not need to be covered.
- 3.6 2016 saw an increase in the number of Regulation 34 requests due to the excess supply in some WEEE streams against targets.
- 3.7 Concerns about shortage of treatment capacity for cooling units persisted through most of 2016. The consequent increase in treatment costs contributed to some refurbishment of existing plants. Some new capacity also came on stream from 2017.

2017

- 3.8 In 2017 there was an overall market shortfall, with 84% of the household WEEE collection target achieved. The shortfall occurred in all categories except photovoltaic panels, which exceeded the target by 63.49 tonnes. WEEE collection rates were predicted to be below target from the end of Q2, where 44% of the overall WEEE target had been achieved (Environment Agency²⁶).
- 3.9 Many PCSs had no choice but to use the compliance fee resulting in an £8 million fund. Operational issues persisted in allocating responsibility for non-household units that arose in the DCF network. Additionally, PCSs were seen to no longer be prioritising collections from Local Authorities, which resulted in concern by Local Authorities that their WEEE was no longer attractive to PCSs.

²⁵ Dual-use WEEE are products designed for both household and non-household use, resulting in different options for the producers under the 2013 WEEE Regulations.

²⁶ Statistical data set: Waste electrical and electronic equipment (WEEE) in the UK.

<https://www.gov.uk/government/statistical-data-sets/waste-electrical-and-electronic-equipment-weee-in-the-uk>

- 3.10 The collection of non-obligated²⁷ WEEE was predominantly funded by the holders of that WEEE. AATFs were able to sell the evidence at costs lower than the costs of collection and treatment from DCFs, which encouraged PCSs to seek evidence rather than undertake collections from local authorities. Late adjustments to data reported by PCSs and AATFs suggests there was migration of non-obligated WEEE collected initially by AATFs to PCS obligated WEEE.

4. Unintended consequences

- 4.1 Use of Regulation 34 was not designed as a long-term solution for local authorities. It brings operational uncertainty and extra administrative burden of making repeated separate requests to PCSs every time a collection was required across all WEEE streams. It could lead to PCSs incurring high costs which would be passed on to producers. To reduce the burden of Regulation 34 requests, industry initiated the formation of the voluntary PCS Balancing System, whereby the costs of collection are shared by all PBS members. There was a concern by some stakeholders that the costs of Regulation 34 have been predominantly borne by those PCSs that joined the PBS. There was also a concern that the costs of PBS collections may be far higher than the actual cost of collection and treatment. In response to this issue, a legislative amendment came into force on 1 January 2019 making PBS membership a mandatory requirement for all PCSs, subject to approval of a PBS by the Secretary of State²⁸.
- 4.2 Online sales have rapidly increased in recent years, allowing consumers to buy products from sellers in other countries more easily, resulting in new opportunities for free-riding or producers and retailers. This is a consequence of the Regulations being based on the original WEEE Directive which predates the significant growth of internet sales. The introduction of authorised representatives have had little impact on addressing the challenge of international internet sellers free-riding. The issue is the challenge of regulating non-complainant internet sellers given that many are operating from overseas and even policing UK based companies is a problem can be challenging.
- 4.3 The significant size of the WEEE Compliance Fee fund of £8 million in 2017 and a further £3.3 million in 2018, arose from movements in market conditions that were not predicted at the time the targets were established.
- 4.4 As the government seeks to implement circular economy principles such as encouraging re-use, a conflict arises with trying to achieve ambitious WEEE collection targets which encourage recycling. Re-use activities mainly occur outside of the official waste system and is often not first discarded at DCF sites before being prepared for re-use and thus cannot be counted towards the WEEE collection targets. Encouraging re-use of EEE results in items not entering the waste system, thus supporting the circular economy ambitions but not collection targets.

5. Policy recommendations arising

- 5.1 New strategic ambitions to maximise the value of resource use and to minimise waste and its impact on the environment have been set out in the Resources and Waste Strategy for

²⁷ Non-obligated WEEE is any WEEE entering AATFs or authorised exporters that was not delivered by/on behalf of a PCS or local authority DCF (e.g. direct from a business) and therefore does not have a producer obligation placed on it or evidence issued against it (WEEE Evidence and National WEEE Protocols Guidance: <https://www.360environmental.co.uk/documents/weeeprotocolguide.pdf>).

²⁸ <http://www.legislation.gov.uk/uksi/2018/1214/regulation/11/made>

England. We consider extended producer responsibility (EPR) to be a crucial tool in moving waste up the hierarchy to support these ambitions. It will incentivise producers to design their products to make it easier for them to be reused, dismantled and/or recycled at end of life.

- 5.2 Below are policy recommendations to be explored as part of the commitment in the Resources and Waste Strategy for England to consult on possible reforms to the WEEE producer responsibility regime to incentivise more sustainable product design (eco-design), increase recycling and ensure alignment with the wider extended producer responsibility framework. The consultation will look at alignment of the WEEE Regulations with the set of core principles that will act as a framework for developing new extended producer responsibility schemes (the EPR framework is set out in Annex B).
- 5.3 The Consultation will include areas such as how to incentivise increased levels of re-use, increased levels of collection and how to encourage better eco-design than the existing WEEE regulations are capable of delivering. The obligations placed on producers will be key to delivering these ambitions
- 5.4 To support and prepare for the consultation, Defra has commissioned an independent study to identify the key characteristics of successful WEEE EPR system.

Online sellers

- 5.5 Online sales have rapidly increased in recent years, allowing consumers to buy products from sellers in other countries more easily. This has resulted in new opportunities for free-riding or producers and retailers. The EA has an active programme of seeking to identify potential free-riders and then to bring them into compliance. The level of non-compliance can only be assessed on a case by case basis as each business would need to be investigated to determine if it is placing EEE on the market. The EA continually seeks to identify potential-free riders and then using available information to risk profile potential offenders, those posing the highest risk are targeted for further follow up work. There is increasing concern that there is significant free-riding in the online market place, with a significant number of overseas supplier's providing EEE products directly to the end user in the UK. The challenge here is that the UK regulators have no regulatory jurisdiction over such overseas suppliers. By avoiding financial obligations and costs, free-riders gain a competitive advantage over registered and compliant producers.
- 5.6 Since the publication of the consultation response Defra has organised roundtable discussions with online marketplace representatives to explore the issue. We have commenced a pilot with an online platform to educate sellers of lamps and to ensure that products are blocked in case of non-compliance. Additionally, UK legislation requires some retailers to take back unwanted electrical equipment they put on the market. In the recently published Resources and Waste Strategy for England, the Government has set out proposals to revise these Regulations, subject to consultation, to ensure that producers bear the full net costs of dealing with products as they become waste. This includes making sure that online sellers with an internet-only presence are fully meeting their obligations.

Business to Business (B2B/non-household) obligations

- 5.7 Stakeholders have raised concerns around the application of dual-use EEE by some producer compliance schemes' members, with EEE being designated as B2B rather than

B2C (business to consumer/household). This results in additional financial burdens falling on B2C EEE producers.

Additionally, a shared concern that the guidance for businesses on how to deal with Business to Business (B2B) WEEE lacks details and clarity, leading to fly-tipping at the expense of local authorities.

- 5.8 As outlined above, we will be consulting on ways to increase WEEE collections, which include non-household/B2B WEEE.

Distributor obligations

- 5.9 In the Resources and Waste Strategy, the Government committed to revisit the distributor take-back scheme (DTS). The existing DTS expires at the end of December 2019 and discussion are being held with retailers to explore whether a DTS should continue and if so how it would operate. As part of the wider consultation, we want to review the role of retailers, including the provision for DTS as a mechanism designed to fulfil their take-back obligations.

Increase levels of WEEE collections and incentivise re-use

- 5.10 Ambitious WEEE collection targets are set by the Secretary of State on a yearly basis to contribute to the EU Member State have been set since the introduction of the 2013 WEEE Regulations. PCSs pay a WEEE compliance fee as a legitimate way of meeting their WEEE collection obligations should they meet their share of the target; this has resulted in a fund size of £8 million in 2017 and a further £3.3 million in 2018. The WEEE compliance fee fund is available for disbursement to organisations and local authorities to support higher levels of collection, recycling and re-use for household WEEE and other initiatives which will contribute to meet the aims of the WEEE Directive. The WEEE fund is being disbursed into three main streams of work including technical research projects, investment in local and community projects and national communication and behaviour change programmes for which the spend will be spread across three years.
- 5.11 In 2019, a study to provide information on the types and extents of unreported EEE and WEEE flows has commenced. The study aims to provide more accurate information on the WEEE available in the UK for collection and recycling (household and non-household). This will be a useful means to guide target setting by providing a clearer picture of e.g. the flows of EEE not entering the market and WEEE leaving or not entering the official system without being counted. Additionally, the study will capture information on WEEE activities which can be captured and reported and will provide a focus for future projects to capture more WEEE in the official system.
- 5.12 Investment from the WEEE fund in a major national communication and behavioural change campaign encouraging householders to recycle WEEE, particularly small items that are too easily thrown in the bin and how to do so in a way that protects personal data will assist in achieving household WEEE collection targets.
- 5.13 In the Resources and Waste Strategy for England, the Government has committed to amend waste regulation so that Household Waste Recycling Centre (HWRCs) perform a more effective role in resource efficiency, for example by clarifying the duty as to re-use.
- 5.14 We will also explore further measures as part of the consultation on changing the WEEE regime such as setting clear outcomes, objectives, targets and responsibilities for EPR schemes to support long-term planning, investment and research and development by

producers in specified sectors and the resource management sector. Schemes will also need to be designed to make it easy for consumers to play their part.

Extended producer responsibility and eco-design

- 5.15 As part of the commitment made in the Resources and Waste Strategy for England, the review of the WEEE regime will seek views on how the existing Regulations can be amended to encourage better designed, more sustainable products (eco-design). This will include reviewing how to ensure alignment with the wider extended producer responsibility (EPR) framework to ensure, among other things, full net cost recovery. Any EPR measures should complement other policy measures which aim to achieve similar outcomes (such as product standards and resource efficiency criteria).
- 5.16 We will consult on the use of modulated fees (or obligations) or other measure that will encourage producers to make more sustainable design, production and purchasing decision in line with the waste hierarchy and our resources and waste priorities.

6. Comparisons with other member states

- 6.1 The UK has implemented the WEEE Directive fully. The WEEE Directive provides significant flexibility as to how it is implemented by Member States. This has resulted in different methods for implementing the requirements. No two Member States have the same system, meaning it is not possible to provide accurate comparisons however a few examples of other MS systems are provided below.
- 6.2 In France a visible fee is used, whereby the consumer knows when buying EEE how much of the cost goes towards recycling WEEE. In the UK, producers pay for the collection and treatment of WEEE but consumers do not pay a visible fee.
- 6.3 In Sweden, just two producer responsibility organisations (PROs) are responsible for the management of WEEE recycling, and servicing producers and manufactures of EEE. In Italy, local authority sites are divided up and allocated to PROs. This results in some PROs being allocated local authorities with varying costs associated to them, so an algorithm was developed which takes into account varying collection costs around the country. This ensures any PCSs with local authorities that incur high collection costs, will be compensated the following year.

7. Conclusion

- 7.1 The PIR has been informed by a consultation carried out involving key stakeholders, correspondence from PCSs and trade bodies, compliance fee proposals submitted from 2014 to 2018 (summary of market information), Environment Agency statistical data sets and data reported by the UK to the European Commission, a Regulatory Triage Assessment on Regulation 34 and data from the PBS administrator.
- 7.2 It is clear from the evidence that the 2013 WEEE Regulations have achieved the intended objectives to ensure compliance with the recast WEEE Directive to further protect the environment as well as human and animal health, to respond to the concerns expressed by UK EEE producers under the Red Tape Challenge regarding the cost of meeting their financial obligations under the previous 2006 WEEE Regulations, to meet the EU Member

State collection targets by setting household WEEE collection targets from 2014 onwards, and to ensure high compliance among UK based businesses.

- 7.3 The objectives were achieved largely by setting household WEEE collection targets to support the increasing EU Member State collection targets which the UK has met since the introduction of the 2013 WEEE Regulations. This is supported by gathering data on household and non-household WEEE financed by producers, supplemented by data from other sources. The introduction of a compliance fee has decreased the cost of evidence and enabled costs correction of WEEE evidence. All WEEE arising at local authority DCFs has been collected and treated, paid for by PCSs on behalf of their producer members.
- 7.4 The unintended consequences of these Regulations have been identified since 2014 and the difficult nature of the regulation 34 request has been addressed by mandating PCS membership of a PBS by amending regulations.
- 7.5 The UK has now left the EU. The Government remains supportive of the core principles of the 2002 WEEE Directive, being “to promote re-use, recycling and other forms of recovery of waste electrical and electronic equipment (WEEE) in order to reduce the quantity of such waste to be disposed”. To this effect the UK will continue to implement these principles through the WEEE regulations and will consider how best to make improvements to the UKs WEEE producer responsibility regime. In the Resources and Waste Strategy the Government committed to consult on the changing the WEEE producer responsibility regime.
- 7.6 Even though there is clear evidence to show that the 2013 WEEE Regulations achieved the objectives supporting the regulatory changes, it is clear from the Government’s Resources and Waste Strategy for England that strategic ambitions have emerged to maximise the value of resource use and to minimise waste and its impact on the environment. Where existing legislation does not match these ambitions, we will take new powers to strengthen it. For the WEEE producer responsibility regime this will involve consulting on changes to the Regulations to incentivise more sustainable product design, increase recycling and ensure alignment with the wider EPR framework. Following these reviews, we will amend the Regulations as necessary.

Annex A

Table A1 Re-use and Recycling rates (actual and target) from 2014 to 2017 for the 10 categories of EEE as set out in the WEEE Directive 2012/19/EU.

Re-use and Recycling	2014	Actual			Target		
		2015	2016	2017	2015	2016	2017
(1) Large household appliances		80%	81%	81%	75%	80%	80%
(2) Small household appliances		84%	83%	86%	50%	55%	55%
(3) IT and telecommunications equipment		82%	83%	85%	65%	70%	70%
(4) Consumer equipment and PV panels		80%	80%	86%	65%	70%	70%
(5) Lighting equipment		83%	83%	88%	50%	55%	55%
(5a) Gas Discharge Lamps		90%	91%	91%	80%	80%	80%
(6) Electrical and electronic tools		84%	83%	84%	50%	55%	55%
(7) Toys, leisure and sports equipment		83%	83%	83%	50%	55%	55%
(8) Medical devices		86%	95%	91%	50%	55%	55%
(9) Monitoring and control instruments		86%	83%	85%	50%	55%	55%
(10) Automatic dispensers		91%	85%	95%	75%	80%	80%

Source: Eurostat

Table A2 Recovery rates (actual and target) from 2014 to 2017 for the 10 categories of EEE as set out in the WEEE Directive 2012/19/EU.

Recovery	2014	Actual				Target			
		2015	2016	2017	2014	2015	2016	2017	
(1) Large household appliances		85%	87%	90%	80%	80%	85%	85%	
(2) Small household appliances		87%	89%	90%	70%	70%	75%	75%	
(3) IT and telecommunications equipment		85%	87%	87%	75%	75%	80%	80%	
(4) Consumer equipment and PV panels		83%	86%	93%	75%	75%	80%	80%	
(5) Lighting equipment		87%	86%	92%	70%	70%	75%	75%	
(5a) Gas Discharge Lamps		91%	94%	91%	80%	80%	80%	80%	
(6) Electrical and electronic tools		87%	89%	89%	70%	70%	75%	75%	
(7) Toys, leisure and sports equipment		87%	89%	89%	70%	70%	75%	75%	
(8) Medical devices		86%	97%	93%	70%	70%	75%	75%	
(9) Monitoring and control instruments		87%	92%	91%	70%	70%	75%	75%	
(10) Automatic dispensers		91%	96%	95%	80%	80%	85%	85%	

Source: Eurostat

Annex B

EPR Framework set out in the Resources and Waste Strategy for England (page 32)

Our framework for EPR

We have developed a set of core principles that will act as a framework for reviewing our existing producer responsibility schemes and developing new EPR schemes:

1. **Clear outcomes, objectives, targets and responsibilities** are set for individual EPR schemes to support long-term planning, investment, and research and development by producers in specified sectors and the resource management sector.
2. **Producers bear the full net cost of managing their products at the end of their life²⁹**, including impacts on the environment and society so that objectives and targets are met.
3. **Modulated fees or other measures** are used to encourage producers to make more sustainable design, production and purchasing decisions in line with the waste hierarchy and our resources and waste priorities. For example, producers may pay a lower fee for products which are easy to reuse, repair or recycle and a penalty for those that are not.
4. Schemes are designed and implemented to make it **easy for consumers to play their part**, whether through their choices at point of purchase, during ownership of a product, or at the end of its life.

The following principles underpin how we expect the EPR schemes to be organised. They will apply to all reformed and future EPR schemes:

5. **All producers are expected to pay into the system**, either directly or through the price they are charged by others in the supply chain, in line with the 'polluter pays' principle. These payments will be proportionate, and without unnecessary administrative burden.
6. Appropriate measures are put in place to increase transparency of markets, target setting and costs, in order to drive efficiency and to reduce waste crime along the value chain and ensure **costs to producers are fair, necessary and transparent**.
7. **Government will support measures relevant to a scheme's targets and objectives, and ensure that costs to local authorities are met where appropriate.**
8. EPR measures should **complement other policy measures** which aim to achieve similar outcomes (such as product standards, resource efficiency criteria and landfill tax).
9. **Appropriate governance, compliance and enforcement arrangements** will be decided for each individual scheme, as not all products or materials will benefit from the same approach. These will however need to enable delivery of the principles set out above.

²⁹ We will ensure that local authorities are resourced to meet new net costs arising from the policies in this Strategy, including upfront transition costs and ongoing operational costs.

Commitment set out in the Resources and Waste Strategy for England (page 36) on how to improve producer responsibility for waste electrical and electronic equipment:

By the end of 2020 Government will consult on changing the waste electrical and electronic equipment (WEEE) and batteries producer responsibility regimes to incentivise more sustainable product design, increase recycling and ensure alignment with the wider EPR framework. Following these reviews, we will amend the Regulations as necessary.

Waste electrical and electronic equipment

The current system for WEEE is based on ‘collective producer responsibility’ – producers pay based on their market share in specified equipment categories, but do not have to reprocess their own equipment, unlike in an individual producer responsibility scheme. The 2013 WEEE Regulations have led to separate collections of WEEE, primarily via Household Waste Recycling Centres, with producers financing the full cost of collection and proper treatment. Retailers also have obligations, either to take back waste electrical equipment from consumers, or to engage in a Distributor Take-back Scheme (DTS) which provides funding for local authorities to support collection and reuse. Nevertheless, more needs to be done to increase collections, particularly of small items (often with high plastic content) that are easily discarded as residual black-bin-bag waste. The current system does not reward producers for designing and selling more resource efficient products or services.

We will publish a review of the effectiveness of the 2013 WEEE Regulations in 2019 and will seek views by the end of 2020, including on how the existing Regulations can be amended to encourage better designed products. These will incorporate findings from our consultation on EPR for packaging. The review will explore options for tackling the growing numbers of internet sellers who do not meet their obligations, taking into account the recommendations from the Organisation for Economic Co-operation and Development (OECD) in addressing free-riding in the context of electrical and electronic equipment³⁰. We will review the role of retailers, in particular the Distributor Take-back Scheme as a mechanism designed to fulfil their take-back obligations.

³⁰ OECD, Working Party on Resource Productivity and Waste, Extended Producer Responsibility (EPR) and the Impact of Online Sales, 2018.
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