2013 WEEE REGULATIONS – PROPOSED COLLECTION TARGETS FOR 2019

Introduction:
The 2013 Waste Electrical and Electronic Equipment Regulations require the Secretary of State to set the tonnage of household WEEE collections falling within each category of Electrical and Electronic Equipment (EEE) that is to be financed by producers via their membership of a Producer Compliance Scheme (PCS).

The proposed overall UK WEEE collection target for 2019 is 550,132 tonnes. This is 57,717 tonnes (12 %) higher than the total amount of household WEEE collected and reported by PCSs to the environment agencies in 2018. Table 1 shows how this overall target has been allocated across the 14 categories of EEE. PCS's will not be required to achieve individual collection targets for categories 2-10 provided they have achieved the aggregate of those targets overall.

Table 1 below shows trend data and proposed household collection targets for each category.

	Business to consumer waste collected (tonnes)					Targets (tonnes)		Increase from 2018 collection (%)	Increase above trend growth (%)
	2014	2015	2016	2017	2018	2018	2019		
1 - Large Household Appliances	168,137	178,687	215,362	182,189	168,843	190,171	185,585	10%	7%
2 - Small Household Appliances	33,011	35,738	38,013	36,699	38,056	37,589	54,756	44%	40%
3 - IT and Telecoms Equipment	35,988	47,268	52,008	48,450	44,975	51,239	51,702	15%	7%
4 - Consumer Equipment	35,119	37,974	40,657	39,537	36,529	41,308	39,920	9%	7%
5 - Lighting Equipment	3	1	0	2	0	0	0	-	-
6 - Electrical and Electronic Tools	17,475	18,469	19,290	18,723	17,899	19,337	25,509	43%	40%
7 - Toys, Leisure and Sports	2,149	2,418	2,548	2,328	2,192	2,377	3,092	41%	40%
8 - Medical Devices	9	34	31	22	6	26	26	353%	-
9 - Monitoring and Control Instruments	65	92	170	141	146	184	202	39%	7%
10 - Automatic Dispensers	8	5	9	0	0	1	1	-	-
2-10 Small Mixed WEEE (sub total)	***123,826***	***142,000***	***152,725***	***145,902***	***139,804***	***152,061***	***175,208***	**25%**	**21%**
11 - Display Equipment	83,739	74,326	71,266	54,188	47,010	50,350	48,680	4%	-
12 - Cooling Appliances Containing Refrigerants	114,095	121,650	134,666	135,145	131,939	138,891	135,415	3%	-
13 - Lamps	2,083	5,645	6,139	5,383	4,819	5,517	5,168	7%	-
14 - Photovoltaic Panels	0	95	99	106	0	76	76	-	-
Total WEEE	**491,880**	**522,402**	**580,257**	**522,914**	**492,415**	**537,066**	**550,132**	**12%**	**9%**

Achieving the EU Member State Collection Target:

Between 2016 and 2018 the Member State collection target was 45% of the weight of all electrical and electronic equipment (household and non-household) put on the market taken as an average of the previous three years for 2019. That rises to 65% in 2019. This equates to a UK Member State target of 1,068,856[1] tonnes for 2019

[1] EU Directive states that from 2016 the target that applies to each Member State will be 45% of the weight of

(including household and non-household WEEE).

It follows therefore that household collection targets placed on producers should increase to reflect that higher Member State target. The total household target is 871,492 tonnes. This includes estimates of large domestic appliances (cookers, washing machines etc.) collected with scrap metal and recycled outside the WEEE system (substantiated estimates) and data from recyclers on other WEEE recycled on a commercial basis outside the producer financed system (non-obligated WEEE). Removing the balance of substantiated estimates and non-obligated WEEE from the total household target results in household WEEE collection target of 556,805 tonnes.

The proposed HH target for 2019 (550,132) would result in a collection rate of 64.5% (65% when rounded to the nearest percentage point).

The following actions are proposed by producers in 2019, using funds from the WEEE compliance fee, to assist in achieving the increased overall Member State target:

- Support a major national communication and behavioral 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.
- Undertake a study to better understand how businesses dispose of WEEE with estimated volumes of that which is properly treated but which is currently unreported.
- Undertake a study to estimate the volume of equipment placed on the UK market but subsequently exported before it becomes waste.

Taken together it is hoped these projects along with challenging household WEEE targets will ensure the Member State collection target is achieved.

Collected WEEE and proposed target for 2019

Given the EU target of 65% of weight of EEE put on the market over the previous 3 years it is important to review the household collection rates for each category outlined in Table 2 below which reflect actual / proposed collections in tonnes as a proportion of the average household EEE placed on the market over the previous three years. The collections are inclusive of producer collections of household WEEE, non-obligated collections of WEEE[2] and a substantiated estimate for Category 1. In 2018 there was a significant drop in the total non-obligated tonnes of WEEE collected when compared to historical data – we have assumed this low collection of non-obligated WEEE is fixed for 2019 rather than use an average of historical data. This is because of the risk of relying on higher levels of non-obligated WEEE to help us meet the EU MS target of 65%. The proposed collection rates below for 2019 could be conservative estimates if non-obligated collections are

equipment put on the market taken as an average over the previous three years. This is rising to 65% of the weight of equipment put on the market taken as an average over the previous three years in 2019.

[2] WEEE treated at approved authorised treatment facilities but not from or on behalf of a producer compliance scheme.

higher in 2019.

Table 3: Household recycling rates for 2018 and 2019 (based on proposed targets)

The proposed collection rates are based on 65% of the weight of household EEE put on the market averaged over the three previous years taking into account substantiated estimates and an estimated amount of non-obligated WEEE assumed to be similar to the 2018 rates for non-obligated WEEE.

	2018 % collection rate	Proposed 2019 % collection rate
1 - Large Household Appliances	75%	78%
2 - Small Household Appliances	25%	37%
3 - IT and Telecoms Equipment	77%	89%
4 - Consumer Equipment	72%	85%
5 - Lighting Equipment		
6 - Electrical and Electronic Tools	26%	36%
7 - Toys, Leisure and Sports	5%	6%
8 - Medical Devices	8%	9%
9 - Monitoring and Control Instruments	5%	6%
10 - Automatic Dispensers		
2-10 Small Mixed WEEE (sub total)	**39%**	**48%**
11 - Display Equipment	66%	67%
12 - Cooling Appliances Containing Refrigerants	68%	71%
13 - Lamps	50%	60%
14 - Photovoltaic Panels	0%	0%
Total WEEE	**58%**	**65%**

For certain categories we are proposing particularly high recycling targets – IT and telecoms equipment (89%) and Consumer equipment (85%). It should be noted that whilst the collection rates for these categories are high, the proposed targets for these categories have been subject to a much lower percentage uplift than other categories with historically low collection rates (see Table 1, column titled Increase from 2018 collection (%)).

In both cases it is envisaged that the proposed national communications campaign, financed by producers and focused on “small mixed WEEE” (categories 2-10) will lead to increased collections in 2019.

Methodology

The starting point for setting targets is to calculate 65% of the weight of household EEE placed on the market averaged over the previous 3 years. To then arrive at an overall target by deducting the estimated Category 1 (LDA) collected with scrap metal (substantiated estimates) and non-obligated WEEE reported in 2018. This calculation brings a household WEEE collection target of 556,805 tonnes.
The methodology for calculating individual category targets is calculated by taking the average annual growth rate in tonnes of WEEE collected between 2014 and 2018 and projecting this forward to 2019. Using this trend data mitigates the effect of

outliers in the data, with the subsequent figure reflective of the general trend in collection volumes over the last five years. WEEE collected by schemes and reported to the environment agencies is used as the source data.

In some cases, manual adjustments have been made where the previous growth trend is not judged to be reflective of current market dynamics. Some targets for individual categories have then been increased above the trend from between 7% and 40% to achieve an overall household collection rate in line with the Member State target. In some categories we have recognised from market trends that the 2019 target should be lowered from the 2018 target – for example, due to changes in the weight of new units compared to the weight of 'waste units'. In these case, the 2019 target has been formed by taking the mid-point tonnage between what was collected in 2018 and the 2018 target.

The most significant adjustments have been made to categories 2-10 (collected together as "small mixed WEEE") where current return rates are typically very low (see Table 3). E.g. for categories 2 (small household appliances such as toasters and kettles), category 6 (electrical and electronic tools such as DIY tools) and category 7 (toys, leisure and sports equipment) we have applied a 40% increase to the projection from the five year trend data. The current collection rates in these categories is only 25%, 26% and 5% respectively. For other categories such as category 3 (IT and telecoms), with a high current collection rate of 77% an uplift of 7% has been applied to the projected target.

Category 1: Large domestic appliances

The target for Category 1 is supplemented by substantiated estimates of LDA that is separately collected and treated with scrap metal.

Categories 2 – 10: Small mixed WEEE

<u>Category 2: Small household appliances**,** Category 6: Electrical and Electronic tools and Category 7: Toys Leisure and Sport</u>

The proposed targets follow the 5 year trend data with an additional increase of 40% for categories 2, 6 and. This is based on very low collection rates (25%, 26% and 5% respectively). The large increase in these categories will be supported by the communications and behavior campaign mentioned above.

<u>Category 3: IT and Telecoms Equipment; Category 4: Consumer Equipment</u>

A five year trend analysis was carried out for categories 3 and 4 and a 7% increase applied resulting in proposed targets of 51,702 tonnes and 39,920 tonnes.
As return rates for IT and telecoms equipment as well as consumer equipment (e.g. radios, headphones etc.) are high (77% and 72% respectively), a lower 7% increase to the five year trend has been applied yielding a return rates of 89% and 85%. These categories will also be a focus of the communications campaign.

Category 5: Lighting

Household light fittings entered into the scope of the Regulations on 1 January 2019. Producers will not have any obligations for household light fitting until 2020 and as a result the lighting target is set at zero, which follows the precedent set from 2014-18.

Category 11: Display

The weight of displays has been in decline over recent years as a result of a move towards lighter flat-screen products. This is reflected in lower weight-based collection targets year on year. For 2018 targets, additional data was supplied on the current and estimated future ratios of Cathode RayTube displays to Flat Panel Displays to construct estimates based on the units of display; the approach that was used for category 12 also last year. However, this year there was not enough robust data available on the weights of Display placed on the market and collected for WEEE in 2018. As a result, the midpoint was found between the 2018 WEEE collected tonnage for category 11and the target for 2018 to give a target for 2019 of 48,680 tonnes.
We are particularly interested in any evidence or data either in support of that approach or in support arguments for that trend data to be adjusted for 2018.

Category 12: Cooling Appliances Containing Refrigerants

For the purposes of target setting it is assumed that POM for 2019 would be the same as 2018. Taking into account approximate weights[3] of POM units and units collected, a target of 77% return on the number of units has been derived for the 2019 target. The target is the midpoint between the 2018 target and the 2018 collection rate which leads to a target of 135,415 tonnes. This an increase in return rate of 2% compared to the 2018 target in units and represents 3% more than the units collected in 2018.

Category 13: Gas Discharge Lamps and LED Light Sources

Taking into account the definition change of household WEEE since 2014 for so called “dual use” equipment, a 5 year trend analysis resulted in a target of 7,748 tonnes which was considered too high of a target and therefore subsequently revised downwards. The target used in this paper is the midpoint between the 2018 target and the 2018 tonnage collected which leads to a target of 5,168 tonnes. This is a 7% increase in the weight collected from 2018. This reflects the fact that in the long term, lamp collections will decline, as the move from fluorescent (typical lamp life 6-10,000 hours) to LED (typical lamp life 25,000 hours) gathers pace. But there is undoubtedly going to be some volatility in annual collections, caused in part by the number of major lighting upgrade projects – fluorescent are being replaced by LED lamps (or LED luminaires) before they reach end of life.

Category 14: PV panels

Using the 5 year trend methodology for setting this target would not yield a target as

[3] Provided by industry

current data shows that the collected tonnage for category 14 in 2018 was 0. This may be adjusted when we receive final data from the Environment Agency at the end of February. The target has therefore been set to be the same as for 2018.

The following approach was used in the 2017 and 2018 target setting papers and was suggested by some stakeholders.

It was estimated that 1,102,230 tonnes of photovoltaic panels had been installed to the end of 2017. Of this, it is estimated that 0.002% (22.045 tonnes) would be returned as WEEE in 2018 – however in reality zero tonnes were reported as collected in 2018. 18,733 tonnes of PV panels were placed on the household market in 2018. This was a decrease compared to the 49,000 tonnes placed on the market in 2017.

As zero installations in 2018 were returned as WEEE, we have decided to set the target for 2019 using the same approach for 2019.We are particularly interested in any evidence or data either in support of that approach or in support arguments for that trend data to be adjusted for 2018.