



**Proposal to the Department of Business  
Innovation and Skills**

**Operation of a WEEE Compliance Fee for the  
2014 Compliance Period**

**Appendix 1**

**September 2014**



September | 2014

# WEEE compliance fee methodology

Proposed methodology for the calculation of  
a compliance fee in relation to the Waste  
Electronic and Electrical Equipment  
Regulations 2013

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## Glossary

Avoidable cost	Avoidable, or separable, costs are those that could be eliminated by reducing the amount of WEEE collected by a PCS
AATF	Approved Authorised Treatment Facility
BIS	Department for Business, Innovation & Skills
DCF	Designated Collection Facility
Direct cost	Direct, or variable, costs are those that change in proportion to the amount of WEEE directly collected by the PCS
Direct collections	Those collections under the direct control of the PCS, where the PCS has been contracted to undertake and directly manage the collection and treatment activity and can choose the collection and treatment providers.
EEE	Electronic and Electrical Equipment
Escalator	The mechanism in the proposed methodology that incentivises compliance by collection
Fee	The compliance fee under Regulation 76 of the WEEE Regulations
Incremental cost	Incremental, or marginal, costs are those additional costs that arise for a PCS as further WEEE is collected
JTA	Joint Trade Associations Group (Producer Responsibility)
LHAs	Large household appliances
Net cost	All direct costs less revenues associated with collection and treatment of WEEE, where direct costs are greater than revenues

Over-collector	An individual PCS that collects more WEEE than its obligation amount, independent of total WEEE collections in the UK
Overhead cost	Overhead, or indirect, costs are those that do not change in proportion to the amount of WEEE directly collected by the PCS
PCS	Producer Compliance Scheme
Settlement Centre	An online tool managed by the Environment Agency through which PCSs accept evidence
Under-collector	An individual PCS that collects less WEEE than its obligation amount, independent of total WEEE collections in the UK
WEEE	Waste Electronic and Electrical Equipment
WEEE Regulations	Waste Electronic and Electrical Equipment Regulations 2013

## **1. Introduction**

### **Introduction**

- 1.1 This report has been prepared by FTI Consulting for the JTA. We have been asked to identify and propose a methodology for the calculation of the compliance fee (the “Fee”) in accordance with Regulation 76 of the Waste Electrical and Electronic Equipment Regulations 2013 (as amended) for the compliance year ending 31 December 2014. We set out our instructions in more detail below. Our relevant experience is summarised in Appendix 1.
- 1.2 We understand that this report will form part of the JTA’s submission to the Department for Business, Innovation & Skills (“BIS”).

### **Background**

- 1.3 In the paragraphs below, we summarise aspects of the background to the WEEE Regulations that appear to us to be relevant to our instructions.

### ***Previous WEEE regulations***

- 1.4 The previous WEEE Regulations were introduced in 2007, in response to EU Directive 2002/96/EU. Under these regulations, producers of Electronic and Electrical Equipment (“EEE”) are required to finance the collection, treatment, recovery and environmentally-sound disposal of WEEE. Producers are required to join a body responsible for organising the handling of WEEE on behalf of its members, referred to as a Producer Compliance Scheme (“PCS”). PCSs collect evidence notes showing the amount of WEEE collection and treatment they have financed.
- 1.5 Under the previous regulations, WEEE was split into thirteen categories, and each PCS was responsible for financing the treatment of a percentage of household WEEE in each category. Each PCS’s percentages were set by reference to the EEE intended for private households that was put on the UK market by its members in the year. As a result, no PCS knew its obligations until the end of the year.

- 1.6 As each PCS did not know exactly what its obligation would be, it was inevitable that at the end of each compliance year some PCSs had a surplus of evidence notes and some had a shortage. There was a settlement period during which PCSs could buy and sell evidence notes, through a settlement centre run by BIS. These regulations meant that local authorities were always able to arrange for a PCS to organise the collection and treatment of WEEE, because all PCSs were certain that the evidence would either count towards their own target, or they would be able to sell the evidence to another PCS. Historically, some PCSs were consistent “over-collectors”, and others were consistent “under-collectors”.
- 1.7 This mechanism had the following effects<sup>1</sup>:
- (1) demand for evidence notes was inelastic, due to high penalties for non-compliance. Under-collecting PCSs were subject to excessive charging for evidence notes by over-collecting PCSs. As there was no alternative method of compliance, there was no clear ceiling on the price of evidence notes;
  - (2) if any PCS had a surplus of evidence notes at the end of the year, it was guaranteed that another PCS would face a shortage. As above, PCSs with a shortage could be forced to pay extremely high prices for evidence notes on the secondary market;
  - (3) there was no incentive for a PCS with a surplus to attract new producers at lower fees;
  - (3) similarly, there was limited incentive for waste treatment facilities to operate efficiently and keep costs down, as they were guaranteed to sell all their evidence notes at prices that could bear little or no relation to the true cost of treatment; and
  - (4) for certain streams, PCSs could profit from both the collection of materials and the sale of evidence notes. There was consequently an additional incentive for PCSs to collect more than their own individual target of such WEEE streams to maximise their profits.

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<sup>1</sup> In October 2013 BIS published an Impact Assessment discussing proposed changes to the WEEE Regulations. Section 3 of this report includes a more detailed discussion of the failures of the previous WEEE Regulations.

### **The 2013 WEEE Regulations**

- 1.8 In December 2013, following a period of consultation by BIS, the UK Government passed the 2013 WEEE Regulations. The WEEE Regulations were passed in response to EU Directive 2012/19/EU on WEEE, which recast Directive 2002/96/EU, and they came into effect in January 2014.
- 1.9 Under the 2013 WEEE Regulations, the number of WEEE categories has been increased to fourteen. Collection targets for household WEEE are now given in 6 collection streams, into which the fourteen categories are allocated. Each PCS is given a collection target for each collection stream for each compliance period (1 January to 31 December). This target is determined based on the amount of EEE in each category that was put on the market by the scheme's members in the previous year, and other factors determined by BIS.

### **WEEE compliance fee**

- 1.10 Regulation 28 of the WEEE Regulations sets out the responsibilities of PCSs for financing the handling of household WEEE. Under Regulation 33, any PCS which does not achieve compliance by collecting and treating WEEE in line with its members' obligations is able instead to pay a compliance fee in respect of the shortfall. This prevents the enforced purchase of WEEE evidence notes by PCSs through the secondary market as the only means of achieving compliance. It also works in the event that the UK, despite collecting and treating all WEEE available, falls short of its overall PCS aggregated target, by ensuring producers still fulfil their financing obligation.
- 1.11 In each compliance period, the Secretary of State may approve a methodology for the calculation of the Fee. Proposals for a methodology must be submitted to the Secretary of State by 30 September in the compliance period in which the methodology will apply, as detailed in Regulation 76.

### **Our instructions**

- 1.12 FTI Consulting has been instructed by the JTA to identify methodologies for the calculation of the compliance fee in accordance with Regulation 76 of the WEEE Regulations for the compliance year ending 31 December 2014. We have been asked to consider the economic, commercial, environmental and practical rationale of various methodologies, and propose the methodology that we believe has the most merit.
- 1.13 We have not been instructed to include in this report a detailed assessment of those methodologies that we do not consider should be adopted. We have also not been instructed to:
- (1) propose a methodology for the disbursement of funds;



- (2) propose an operator or Administrator;
- (3) propose IT systems; or
- (4) calculate the Fee.

1.14 We set out important restrictions and limitations on our work in Appendix 6.

#### **Sources of information**

1.15 In preparing this report, we have reviewed EU and UK government documentation relating to the WEEE Regulations, including that published by BIS. We list the information we have relied on in Appendix 2.

#### **Structure of this report**

1.16 The remainder of this report is structured as follows:

- in Section 2, we summarise our conclusions;
- in Section 3, we describe our approach to identify and assess potential methods for determining the Fee;
- in Section 4, we set out and explain the market factors that we consider are key in any consideration of a Fee methodology;
- in Section 5, we list the criteria that we have chosen against which to assess potential methodologies;
- in Section 6, we explain and consider several possible methodologies; and
- in Section 7, we explain the methodology we recommend is adopted for the calculation of the Fee, and we explain our rationale.

## 2. Summary of conclusions

### Introduction

- 2.1 In this section, we summarise our conclusions. We first outline the criteria against which we have assessed Fee methodologies. We then summarise the mechanics and rationale of the Fee methodology that we recommend.

### Criteria

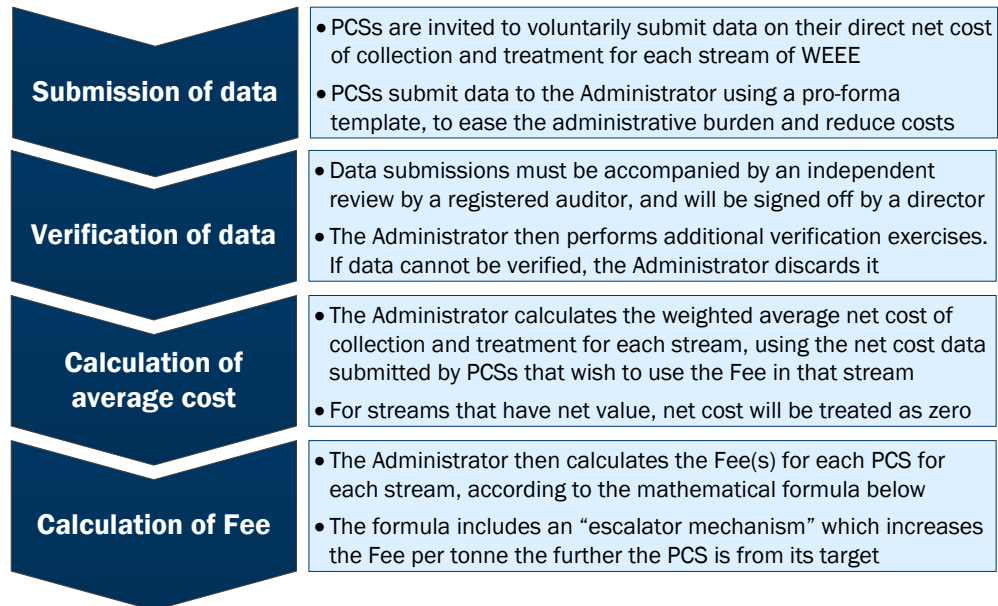
- 2.2 Using our knowledge of the WEEE market (discussed in Section 4) and our experience in advising companies and government entities on pricing and other economic aspects of regulated industries (summarised in Appendix 1), we have identified seven criteria against which Fee methodologies should be assessed:

- (1) **Effective.** The Fee must incentivise PCSs to achieve compliance by direct collection of WEEE where possible, without encouraging over-collection.
- (2) **Cost reflective.** The Fee must be directly related to the true cost of directly collecting and treating WEEE in each stream. If it is not, undesirable market distortions may arise.
- (3) **Transparent.** The Fee must be straightforward. The methodology should be understandable to all stakeholders, while maintaining confidentiality.
- (4) **Reasonable.** The administrative burden and cost of calculation must not be excessive.
- (5) **Feasible.** The financial and other data needed to calculate the Fee must be available. It must be possible to complete all necessary calculation procedures within the timeframe set out by BIS.
- (6) **Robust.** The Fee should be calculated in such a way that it cannot be manipulated by any individual PCS to harm other PCSs.
- (7) **Competition issues.** The Fee should improve competition.

- 2.3 We discuss these criteria in further detail in Section 5.

## Methodology

2.4 We summarise the mechanics of our recommended methodology in the figure below. The full methodology is explained in further detail in Section 7.



2.5 The formula we recommend is as follows:

$$f_n = k_n \times (t_n - c_n) \times \left( 1 + \left( \frac{t_n - c_n}{t_n} \right)^2 \right)$$

2.6 Where:

$f_n$ : the Fee for the relevant stream, in GBP.

$k_n$ : the weighted average net cost of collection for the stream, in GBP per tonne.

$t_n$ : the PCS's target for the stream, in tonnes.

$c_n$ : the amount of the stream of WEEE collected by the PCS, in tonnes.

- 2.7 We consider that this methodology meets all of the criteria identified above.
- 2.8 In particular, the methodology ensures that the Fee per tonne is higher than the weighted average net cost of collection for each stream, especially for Regulation 43 and 52 collections at large shortfalls, because of the escalator mechanism. It is therefore **effective** and **cost reflective**, because PCSs will be incentivised to achieve compliance in each stream by collection so as not to suffer a financial loss. This will help to reduce the negative externalities associated with untreated WEEE without introducing undesirable market distortions.
- 2.9 This methodology is also **transparent**, and it should be straightforward and comprehensible to all PCSs. It is **feasible** and **reasonable**, because the data required should be readily available. It is not unduly burdensome for PCSs, BIS, the environment agencies or the Administrator. It is also **robust**: it would be very difficult to manipulate the system under this methodology, and the effects of any manipulation would be minor. All PCSs that wish to use the Fee will be incentivised to submit data, as otherwise they will be unable to access it as a means of compliance. The methodology may also **improve competition** in the WEEE market by, among other things, incentivising PCSs to operate more efficiently.
- 2.10 The formula above will not be applicable to LHAs. We consider that the Fee for LHAs should be set to zero, due to the net value nature of this stream.
- 2.11 We explain the mechanics for the methodology and the rationale for our recommendation in further detail in Section 7 of this report.

### **3. Our approach**

#### **Introduction**

- 3.1 In this section, we describe the approach that we take to identify and assess methodologies for calculating the Fee.
- 3.2 In summary, our approach is as follows:
- (1) we first identify the key market factors that must be taken into account in determining a methodology for calculating the Fee;
  - (2) next, we use these market factors and our knowledge of the issues to identify criteria against which to assess possible methodologies;
  - (3) we then determine possible methodologies and consider in detail the merits of each, according to the criteria identified above; and
  - (4) we recommend the methodology that has the most merit.
- 3.3 We discuss each step of our approach in more detail below.

#### **Identification of key market factors**

- 3.4 It is crucial that the methodology for calculating the Fee is considered in the context of the market for WEEE. By first identifying the key market factors, we ensure that our assessment of calculation methodologies is contextualised appropriately.
- 3.5 To identify the key market factors for determining a methodology for calculating the Fee, we have:
- (1) reviewed the 2013 WEEE Regulations;
  - (2) reviewed documents relating to the BIS consultation, and BIS's guidance notes;
  - (3) held discussions with the JTA, represented by leading trade associations, their producer members, and invited producer-led PCSs. In particular, we have discussed:
    - (a) the market for WEEE and the incentives of market participants in general terms;
    - (b) possible Fee methodologies;

- (c) information and data available to PCSs; and
- (4) we have also had regard to our own experience in performing similar reviews, working with regulators on developing economic models to set prices and considering companies' objectives and incentives in regulated industries.

3.6 We set out the key market factors that we identify in Section 4, below.

#### **Identification of criteria**

3.7 Based on our consideration of the key market factors and our understanding of the relevant economic and practical issues, we next identify suitable criteria against which to assess potential methodologies. In doing so, we also take into account the guidance issued by BIS for Fee methodology proposals.

3.8 We set out our criteria in Section 5, below.

#### **Determination of potential methodologies**

3.9 Next, we identify and consider a range of methodologies based on our own experience and understanding of the issues, and discussions with the JTA. We then assess each of these methodologies against the criteria identified above. In Section 6, we list the methodologies that we have considered and describe in detail the rationale for, and potential issues with, these approaches.

#### **Our recommendation**

3.10 Lastly, using our criteria, we identify and refine the methodology that we believe has the most merit, and explain its economic, commercial, environmental and practical rationale.

3.11 We set out our recommended methodology in Section 7 of this report.

## **4. Key market factors**

### **Introduction**

- 4.1 In this section, we set out and explain the market factors that we consider to be important when considering Fee methodologies.
- 4.2 The market factors we identify are:
- (1) environmental considerations;
  - (2) geographic factors and the automatic right of uplift;
  - (3) different incentives for collecting different types of WEEE;
  - (4) the relative scale of some PCSs in some categories;
  - (5) the position and market dynamics of historical over-collectors and under-collectors;
  - (6) size of shortfall; and
  - (7) the structure of PCSs.
- 4.3 We discuss each of these market factors below.

### **(1) Environmental considerations**

- 4.4 Discarded WEEE can cause soil, air and water pollution and have an adverse effect on human and animal health. Treating WEEE, reusing EEE and recycling and recovering energy from waste materials can reduce these negative externalities and have a positive effect on the environment. Encouraging the proper treatment of WEEE is an EU and UK government priority, and we consider that the Fee should be set with this priority in mind.

## **(2) Geographic factors and the automatic right of uplift**

- 4.5 We understand that there can be a wide variation in the collection and treatment costs per tonne of a stream of WEEE, depending on the region of the UK from which it is collected. We also understand that these variations are larger for some streams of WEEE than others. The geographic effect on costs needs to be taken into account in setting the Fee, otherwise there is a risk that the Fee is biased towards more expensive or less expensive regions.
- 4.6 This issue is of particular importance given the automatic right of uplift for Local Authority Designated Collection Facilities (“DCF”). If such a DCF requests the collection of WEEE by a PCS, that PCS is obliged to organise collection regardless of the location of the DCF. It is consequently possible that PCS’ costs may differ significantly simply because one PCS has been obliged to arrange for more rural collections than another. If the Fee mechanism does not take this into account, there is a risk that some PCSs may be unduly penalised due to the right of free uplift.
- 4.7 Geography is also relevant to collections under Regulations 43 and 52, where transport costs are not obligated.

## **(3) Different incentives for collecting different types of WEEE**

- 4.8 We understand that there are significantly different financial costs and benefits associated with collecting and treating different types of WEEE. Some types of WEEE can predominantly be collected and recycled or reused at a profit, whereas other types can usually only be collected and recycled at a net cost. The net cost of collection and treatment of many types of WEEE is determined, to differing degrees, by global commodity prices.
- 4.9 It will be important to understand the different economic incentives, costs and benefits associated with each type of WEEE in considering the Fee. One consequence of differing incentives is that a standard Fee applied across all WEEE streams would not be appropriate.

## **(4) The relative scale of some PCSs in some categories**

- 4.10 If a PCS has a significant market share of a particular stream, that PCS’ data will have a significant influence on any average calculation. This could give rise to competition and confidentiality issues, and will need to be taken into account in considering Fee methodologies.



**(5) Position and market dynamics of historical “over-collectors” and “under-collectors”**

- 4.11 Under the previous WEEE Regulations, a market distortion was created whereby some PCSs over-collected WEEE. These PCSs were then able to sell evidence notes to “under-collectors” at higher prices, due to the design of the market.
- 4.12 In considering the Fee methodology it will be important to understand the market design that led to this outcome, so that similar distortions can be avoided in future. The Fee should not be set at a level that facilitates the continuation of excessive charging by over-collecting PCSs, and it should not create the price inelastic demand conditions that led to this distortion under the previous regulations.

**(6) Size of shortfall**

- 4.13 Some PCSs may miss their collection targets by relatively small amounts, while others may fall significantly short or choose to collect no WEEE at all. There may be very good reasons for some PCSs to miss the targets set by small amounts. Therefore, it may be appropriate for the Fee per tonne to differ depending on the size of the shortfall, with a lower Fee per tonne for PCSs that have only narrowly missed their targets and a higher Fee for those falling well short. This possibility should be considered in setting the Fee.

**(7) Structure of PCSs**

- 4.14 PCSs are structured in many different ways. We understand that a number of PCSs are vertically integrated with, for example, waste management companies, waste treatment facilities and retailers.
- 4.15 The accounting policies and records of vertically integrated and diversified organisations are necessarily more complex than those of single entities. The accounts of some vertically integrated PCSs may raise issues such as transfer pricing, overhead cost allocation and consolidation adjustments. These issues make the determination of costs associated with WEEE stream collection more difficult. Any element of the Fee mechanism that involves the submission of accounting data will need to be considered in this context.

## 5. Criteria for assessing Fee methodologies

### Introduction

- 5.1 In this section, we set out the criteria that we have identified to assess possible methodologies for calculating the Fee.
- 5.2 We first summarise guidance on the submission of Fee proposals published by BIS. This guidance includes certain required features of methodologies, and so is relevant for our consideration.
- 5.3 Then, taking into account this guidance and our assessment of the key market factors in Section 4, we identify the criteria against which we consider the calculation methodology should be assessed:
- (1) effective;
  - (2) cost reflective;
  - (3) transparent;
  - (4) reasonable;
  - (5) feasible;
  - (6) robust; and
  - (7) competition issues.

### BIS guidance

- 5.4 In April 2014 and August 2014, BIS published guidance on the Fee. In making our assessment we have had regard to these documents, and in particular to the following excerpts<sup>2</sup>:

*“The methodology should:*

*- encourage compliance through collection and treatment of WEEE by PCSs via (Designated Collection Facility) DCF, Regulation 43 or 52;*

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<sup>2</sup> Guidance for submissions of proposals to BIS for a compliance fee under the WEEE Regulations 2013, BIS; Guidance on submitting proposals for a WEEE Compliance Fee Methodology, BIS.

- *reflect the different market economics associated with collection, treatment and environmentally sound disposal of the 6 WEEE collection streams;*
- *set out a methodology for calculation of a compliance fee across each WEEE collection stream and argument/evidence in support of that methodology;*
- *be stream specific...*
- *indicate the extent to which the feasibility of the fee has been tested robustly...*
- *allow innovation*
- *consider the impact of and comply with other relevant law, for example Competition Law...*
- *describe what information must be provided by PCSs, including evidence of auditing arrangements that ensures declarations of payments by PCSs (if needed) are robust, and how commercial confidentiality will be maintained;*
- *describe the mechanism by which PCSs can pay the fee, what information must be provided and commercial confidentiality will be maintained...*
- *set out evidence of auditing arrangements that ensures declarations of payments by PCSs are robust..."*

- 5.5 We incorporate these requirements into our criteria, below, and into our identification of methodologies in Sections 6 and 7.

### **Effective**

- 5.6 Under the WEEE Regulations, paying the Fee is a legitimate form of compliance. However, collection should remain the preferable route for PCSs to achieve compliance. The Fee should therefore be set such that PCSs are incentivised to always directly collect WEEE where WEEE has been made available to them without additional costs. This outcome is an explicit objective in the WEEE Regulations<sup>3</sup>, and a principle in the guidance published by BIS<sup>4</sup>.

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<sup>3</sup> WEEE Regulations, Regulation 76, paragraph (4).

<sup>4</sup> See, for example, Impact Assessment of System Changes to the UK Waste Electrical and Electronic Equipment (WEEE) Regulations, BIS, paragraph 92; and Guidance for submissions of proposals to BIS for a compliance fee under the WEEE Regulations 2013, BIS.

- 5.7 For the Fee to be ‘effective’ in this respect, having regard to the potential behaviour of under and over collectors, it will need to be set higher than the incremental cost of collecting WEEE. The Secretary of State may also wish to consider an incremental scale of Fee for PCSs that fail to meet their collection targets by a significant extent, to further incentivise collection where possible.
- 5.8 Equally, as the BIS guidance states, the existence of a compliance fee should discourage individual PCSs intentionally collecting WEEE above their targets (independent of the overall level of UK collections)<sup>5</sup>. To be effective, the Fee must be set at a level to encourage collection, but not to encourage intentional over-collection by individual PCSs.
- 5.9 We will consider whether each calculation methodology is ‘effective’, if it encourages PCSs to achieve compliance by collection while not incentivising over-collection.

#### **Cost reflective**

- 5.10 The “effective” criterion (above) could be met by setting the Fee to some arbitrary, excessively high figure. However, a Fee that is inconsistent with incremental costs in this way could allow the continuation of undesirable market distortions, such as deliberate over-collection and excessive pricing on secondary markets. To avoid this while maintaining effectiveness, the level of the Fee for each PCS should be related to the additional costs it would have incurred if it had met its target. That is, the Fee should be ‘cost reflective’.
- 5.11 In assessing the cost reflectiveness of each Fee mechanism, consideration will need to be given to several of the market factors identified above:
- (1) variations in costs by geography;
  - (2) variations in costs (and benefits) by WEEE type;
  - (3) PCS structure and accounting; and
  - (4) the relative scale of some PCSs in certain categories.

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<sup>5</sup> Guidance for submissions of proposals to BIS for a compliance fee under the WEEE Regulations 2013, BIS, “Rationale”.

- 5.12 The Government chose to implement the original WEEE directive without exercising the option of requiring mandatory handover of WEEE to obligated PCSs, and this position was retained in the 2013 WEEE Regulations. A consequence of this approach is that PCSs and other collectors can continue to over-collect positive value WEEE to generate profit, whether or not they also gain from the sale of evidence to under-collecting PCSs. We consider that:
- (1) the Fee must be directly related to the true cost of directly collecting and treating WEEE;
  - (2) the Fee for positive value streams should be set at zero; and
  - (3) the Fee must not be excessively punitive in nature. If it were, PCSs could be incentivised to over-collect, particularly net value WEEE, as a way of forcing their competitors to pay the unduly high Fee.

#### **Transparent**

- 5.13 A straightforward and transparent calculation methodology that is easily understood by all stakeholders is preferable. If the methodology is transparent, PCSs will understand how their Fee has been calculated. A transparent methodology will make commercial decisions easier, and it could reinforce the efficacy of other criteria. For instance, if a method is transparent then PCSs will understand whether it is also effective.
- 5.14 Whilst ensuring transparency, consideration should also be given to how commercial confidentiality can be maintained. It will be important for an appropriate balance to be struck between full transparency and the appropriate treatment of confidential data.

#### **Reasonable**

- 5.15 The administrative burden and cost of calculating the Fee must not be excessive. PCS' administrative obligations, such as gathering and submitting data, should be proportionate and not unduly burdensome. The cost of calculating the Fee should be kept at a minimum. A straightforward calculation is likely to be the most reasonable.

#### **Feasible**

- 5.16 The financial and other data needed to calculate and comply with the Fee must be available. A Fee mechanism that asks PCSs for data that may not be available is unrealistic.

- 5.17 It should also be feasible to complete the calculation and administration of the Fee within a reasonable period of time, and certainly within any deadlines set within the WEEE Regulations. We understand that BIS intends to announce the mechanism for administering the Fee by the middle of February following the end of the compliance year, for payment by 31 March<sup>6</sup>. It should therefore be possible to complete all calculation and administration of the Fee in a period of about one month.

### **Robust**

- 5.18 The Fee must be calculated in such a way that market participants are not able to manipulate the system. It should not be possible for a PCS to take any actions, including submitting intentionally misstated data, to harm other PCSs.
- 5.19 Assessing how robust each Fee mechanism is will require a thorough consideration of all stakeholders' incentives.

### **Competition issues**

- 5.20 The Fee should encourage and promote competition in the market for WEEE. It should not result in a breach of competition law. In assessing the methodologies, we consider whether potential competition issues may arise, but we do not put forward any legal conclusions.

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<sup>6</sup> Guidance for submissions of proposals to BIS for a compliance fee under the WEEE Regulations 2013, BIS, page 3.

## **6. Our assessment of the possible options**

### **Introduction**

- 6.1 In this section we explain and consider the methodology options available for the calculation of the Fee.
- 6.2 We have considered a wide range of options. For the purposes of brevity, in this section we consider three methodologies in detail that, in principle, may have merit. The methodologies are:
- (1) a Fee based on PCS' average costs of collection and treatment of WEEE;
  - (2) an individualised Fee based on each PCS's costs of collection and treatment;  
and
  - (3) a Fee calculated using a cost model assuming a hypothetical efficient operator.
- 6.3 As we explain in Section 7, we consider that all direct costs and revenues associated with collection and treatment (i.e. net cost) should be considered in calculating the Fee.
- 6.4 We then discuss each of the three methodologies above in turn. We explain the possible mechanics of the calculation – incorporating data collection, data verification and calculation – before assessing the methodology against the criteria outlined in Section 5.
- 6.5 In Section 7, below, we explain our recommended methodology which builds on the methodologies discussed in this section.

### **Method 1: Fee based on PCS' average net cost of collection and treatment**

- 6.6 The Fee for each WEEE stream could be calculated by taking the average of the net costs incurred by PCSs in the collection and treatment of that stream of WEEE in the compliance year.

### **Data collection**

- 6.7 PCS net cost data could potentially be obtained by mandating all PCSs to submit net cost data. Direct cost and income data could be submitted by PCSs so that it is only accessible to the Administrator of the Fee to ensure confidentiality, using a standard pro-forma template. The template could include clear instructions on which cost and income data to submit, to ensure comparability of data between PCSs.

### **Data verification**

- 6.8 Ideally, all submitted net cost data would be subject to a full audit, to prevent any accidental or deliberate misstatements. However, the time period between the announcement of the Fee mechanism and the date by which PCSs must make their compliance declaration (around one month) may be insufficient for a full audit of data to be carried out.
- 6.9 The Administrator could compare submitted cost and income data between PCSs, to identify any anomalies, but this may not provide adequate assurance that the data is accurate.

### **Calculation**








- 6.10 The Administrator could calculate the average net cost of collection and treatment for each stream of WEEE from the data submitted. The calculation of the average net cost should be weighted based on the tonnes of WEEE collected by each PCS, so that it is not skewed by small and therefore potentially unrepresentative collections.
- 6.11 When using an averaging calculation, it is important to recognise that:
- (1) inevitably, for a PCS that needs to use the Fee, its costs of collection and treatment will be different to the average. This is most likely to be the case if all PCSs are included in the average, because the costs of the PCSs that need to use the Fee will have proportionately less influence on the calculation. For instance, if the only PCS to miss its target is a high cost operator, its Fee will be much lower (and consequently less effective) if other, lower cost PCSs are included in the average. An average calculation based on data from all PCSs may therefore not be as 'effective' for some PCSs, unless some adjustment is made; and
  - (2) a further concern is that PCSs will be able to compare their own costs to the average. If a PCS knows which other PCSs comprise the average, this could have a negative effect on competition as low cost PCSs choose to lower their efficiency or increase their member charges without fear of becoming uncompetitive.



## Assessment

6.12 In Table 6-1 below, we consider a Fee based on PCS' average net cost of collection against our criteria.

**Table 6-1: Assessment of Fee based on PCS' average net cost of collection and treatment**

Criterion	Assessment	Rating
Effective	A Fee based on the average costs of all PCSs may not incentivise individual, high-cost PCSs to collect and treat WEEE where possible.	
Cost reflective	The Fee is directly linked to the average costs incurred by PCSs. However, as above, a Fee based on the average costs of all PCSs may not be cost reflective for each individual PCS.	
Transparent	The method is straightforward and comprehensible. Care will need to be given to ensure confidentiality is maintained.	
Reasonable	Submitting cost data and calculating an average does not represent an unduly high administrative burden. However, we understand that mandating all PCSs to submit cost data may require a change in regulations, which may not be practical.	
Feasible	We understand that data on the cost of collection and treatment for each WEEE stream should be readily available to all PCSs within the time frame required.	
Robust	The period between the determination of the Fee methodology and the due date for payment (one month) is not sufficient to organise a full audit of submitted cost data. Further consideration needs to be given to how the Administrator can verify the cost and income information submitted by PCSs. If there is no verification, false data could be submitted and included in the average.	
Competition issues	The potential to submit intentionally misstated accounting data for a particular stream of WEEE could create perverse competition issues.  If PCSs are able to compare their own costs to an average of all PCS costs, there could be an adverse effect on competition.	

### **Summary**

- 6.13 Calculating the average cost of collection and treatment of each stream of WEEE would be a feasible and transparent basis for the Fee. However, further consideration needs to be given to how data is verified, how potential competition issues arising from calculating the average can be overcome, and how the average can be adjusted to be effective for the PCSs who need to use the Fee.

### **Method 2: Individualised Fee based on each PCS's net costs of collection and treatment**

- 6.14 A second method for calculating the Fee for each stream could be to set it equal to the net costs incurred per tonne by each individual PCS. That is, a PCS's Fee for a stream will be based on its own costs of collection and treatment, and it may or may not be the same as another PCS's Fee.

#### **Data collection**

- 6.15 Direct cost and income data could be submitted by PCSs to the Administrator using a standardised pro forma template, as discussed in Method 1, to ensure comparability of data.
- 6.16 PCSs that need to use the Fee will be required to submit data, so that their Fee can be calculated.

#### **Data verification**

- 6.17 As discussed in Method 1, the verification of data presents a potential issue. The Administrator could compare submitted cost and income data between PCSs, to identify any anomalies, but this may not provide adequate assurance that the data is accurate. Additional issues arise if only one PCS submits data. Further consideration will need to be given to how the data is verified.

#### **Calculation**

- 6.18 The Administrator will need to calculate separate Fees for each PCS for each stream. This potentially presents a more significant administrative burden than Method 1, depending on how many PCSs need to use the Fee in how many streams.

### Assessment

- 6.19 In Table 6-2 below, we consider a Fee based on PCS's individual net costs against our criteria.

**Table 6-2: Assessment of individualised Fee based on PCS's net costs**

Criterion	Assessment	Rating
Effective	The Fee is based on PCS's individual costs. It is likely that compliance by collection will be incentivised for all PCSs.	✓
Cost reflective	The Fee is cost reflective for each individual PCS assuming that it submits data and actually collected WEEE.	✓
Transparent	The method is straightforward and comprehensible. PCSs will be able to accurately estimate their own Fee, as it will be directly calculated from their own cost data.  As above, steps will need to be taken to ensure the data remains confidential.	✓
Reasonable	A potential issue is that calculating individual Fees could present a higher administrative burden, depending on how many PCSs need to use the Fee.	✗
Feasible	We understand that data on the cost of collection and treatment for each WEEE stream should be readily available to all PCSs within the time frame required.	✓
Robust	The period between the determination of the Fee methodology and the due date for payment (one month) is not sufficient to organise an audit of submitted cost data. Further consideration needs to be given to how the Administrator can verify the cost and income information submitted by PCSs. If there is no verification, false data could be submitted.	✗
Competition issues	Levying a different Fee on each PCS could create competition issues. It may not be acceptable to competition authorities to levy very different Fees on two PCSs with similar absolute and proportionate shortfalls. This is a potential barrier to entry.	✗

### **Summary**

- 6.20 Setting individual Fees for each PCS based on their net costs might appear to be the most directly relevant measure for the Fee, in particular because the method would be transparent and, by definition, cost reflective. However, it is not clear how data submitted can be verified in the time frame required, calculating individual Fees increases the work (and cost) of the Administrator, and competition issues may result from different Fees being levied on different PCSs. Furthermore, this could drive PCS's to focus on lower cost WEEE, and as a consequence, some PCS's would be faced with a disproportionate amount of high cost WEEE due to the "right of uplift".

### **Method 3: Fee calculated using a cost model assuming a hypothetical efficient operator**

- 6.21 The Fee could be determined using a cost model that estimates, for each stream of WEEE, the efficient transport, treatment and other direct costs of collection and treatment, and income associated with treatment or re-use, for a hypothetical entrant in the WEEE market.

#### **Data collection**

- 6.22 Specialist logistics software to estimate costs and data on secondary material values and container and transport costs is readily available. Collection of data under this methodology will be relatively simple, but input may be required by individuals with appropriate expertise in the WEEE industry.

#### **Data verification**

- 6.23 Data verification should not present an issue under this methodology, provided the data used is from a reputable source and the cost model is independently checked for errors.








#### **Calculation**

- 6.24 The modelling software can be used to calculate efficient costs for a hypothetical new entrant. The Fee can then be based on this calculation. Consideration will need to be given to how accurately modelled costs will reflect actual costs of PCSs, however.

### Assessment

6.25 In Table 6-3 below, we consider a Fee based on cost modelling against our criteria.

**Table 6-3: Assessment of Fee calculated using cost modelling**

Criterion	Assessment	Rating
Effective	Theoretical or efficient costs based on a hypothetical entrants' operating model will not necessarily reflect reality for all PCSs. If there is a mismatch, the Fee may not be effective.	
Cost reflective	As above, the Fee is not based on actual cost data. It is an estimate of efficient costs, which may be inconsistent with the actual costs of some or all PCSs.	
Transparent	The modelling may not be straightforward. However, all inputs, outputs and calculations could conceivably be shared with all PCSs with no danger of breach of confidentiality.	
Reasonable	Creating an accurate and robust cost model (or modifying an existing cost model) that can be relied on without question could be a significant and costly exercise.	
Feasible	Logistics software and cost benchmarks are readily available, but cost modelling would be a significant exercise for the Administrator that may not be feasible given time restrictions.	
Robust	Provided the cost model is created by an independent third party, it should not be possible for PCSs to manipulate the calculation to their advantage.	
Competition issues	The results of publishing the cost model could create a benchmark level to which PCS costs, or the Fees that PCSs charge their members, gravitate. This could have a negative effect on the competitiveness of the market for WEEE.	

### Summary

6.26 Cost modelling would be a robust and transparent way to estimate an efficient cost level, from which a Fee could be calculated. However, it is possible that the costs estimated by the model would be inconsistent with the actual costs of PCSs, which may eliminate the effectiveness of the Fee.

### Issues with methodologies identified

6.27 There are several key issues with the methodologies discussed and assessed above.

- 6.28 With respect to **effectiveness** and **cost reflectiveness**, the methodology must ensure that the Fee is reflective of the costs of the PCSs that use it. A model that estimates efficient costs or an average that includes all PCSs may not be representative of the costs of an individual PCS. There is a danger that a Fee based on these calculations could be too low to encourage collection of WEEE for some high cost operators.
- 6.29 All of the methods discussed above are **transparent**, but it is vital that confidentiality is maintained in the methodology proposed.
- 6.30 The methodologies could be **feasible** and **reasonable**, although if individual Fees are to be calculated for each PCS the cost of the Administrator could be significant.
- 6.31 Further consideration will need to be given to how to make the methodology **robust**. In particular, it must be possible for the Administrator to assess the accuracy of any data submitted by PCSs to ensure there are no misstatements. This must be achievable within the time frame set out in the WEEE Regulations, and without creating an undue administrative burden. The Fee should also be set such that there is no incentive for a PCS to submit intentionally misstated data to benefit itself or harm other PCSs.
- 6.32 Finally, there are potential **competition issues** with the methodologies above. Any methodology that allows a PCS to compare its costs to those of others (even as an average) could have adverse effects on competition. A methodology that assigns a Fee to individual PCSs based on their historical costs could also introduce barriers to entry.
- 6.33 We consider how to resolve these issues in forming our recommended methodology in Section 7, below.

## **7. Our recommended methodology**

### **Introduction**

- 7.1 In this section, we propose the methodology that we consider should be used to determine the Fee. We first explain the mechanics of the methodology, before assessing the methodology against the criteria listed in Section 5, above.

### **Our recommended methodology**

- 7.2 Our recommended methodology is based on a mixture of the positive elements of the options discussed in Section 6. We have looked to combine these options in a way that addresses the issues identified in Section 6.
- 7.3 In summary, the methodology that we recommend is based on the weighted average net cost of collection and treatment of each stream of WEEE, calculated using the incremental avoidable net cost data voluntarily submitted by PCSs that need to use the Fee. The Fee is calculated using a formula that ensures that the Fee per tonne increases the further the PCS is from achieving its target, to incentivise compliance by collection. We refer to this mechanism as “the escalator”.
- 7.4 As we explain below, in our view this is the calculation methodology that has the most merit.
- 7.5 Below, we set out:
- (1) the formula;
  - (2) the relevant income and costs that should be incorporated into the Fee;
  - (3) how data should be collected from PCSs;
  - (4) the steps the Administrator will take to verify data submissions;
  - (5) how the Fee will be calculated;
  - (6) the mechanics of the escalator mechanism;
  - (7) our recommendation with regard to large household appliances (“LHAs”); and
  - (8) the timeline for the collection and verification of data and the calculation and payment of the Fee.

- 7.6 We then consider the rationale for this methodology by reference to the criteria outlined in Section 5.

**Formula**

- 7.7 We consider that the Fee for each stream of WEEE should be calculated using the following formula:

$$f_n = k_n \times (t_n - c_n) \times \left( 1 + \left( \frac{t_n - c_n}{t_n} \right)^2 \right)$$

- 7.8 Where:

$f_n$ : the Fee for the relevant stream, in GBP.

$k_n$ : the weighted average net cost of collection for the stream, in GBP per tonne.  
The calculation of this is explained below.

$t_n$ : the PCS's target for the stream, in tonnes.

$c_n$ : the amount of the stream of WEEE collected by the PCS, in tonnes.

- 7.9 In Appendix 3, we provide an illustrative numerical example of the calculation of the Fee under this method, using fictional data.

**Relevant income and costs**

- 7.10 For our 'cost reflective' criterion to be met, the Fee per tonne should be based on the costs that a PCS would have incurred and the income it would have earned if it had arranged for the collection and treatment of an additional tonne of WEEE for the relevant WEEE stream.

- 7.11 There are therefore two important principles to bear in mind in estimating the net cost:

- (1) **revenue and costs must both be considered.** For streams of WEEE that have value, like LHAs, the income from reuse or resale of component parts and recyclates should be taken into account, along with transport and treatment costs (where applicable). It is therefore the *net cost* that is relevant. The net cost should have a minimum value of zero: it would not be appropriate for net cost to be negative in the calculation of the Fee; and



- (2) **only direct, incremental and avoidable costs and revenues should be included. Overheads are not relevant.** That is, the estimate should include only the additional costs and income associated with collecting and treating an additional amount of WEEE. Overhead costs, including administration, marketing, human resources and office rent are not incremental or directly related to the quantity of WEEE collected, and so they should not be included in an assessment of net cost for the purpose of the Fee.

Furthermore, the majority of PCSs undertake a range of other activities outside of the household WEEE sector. This includes activities related to non-household WEEE, other waste management and other producer responsibility regimes. Correctly and consistently allocating a portion of common overhead costs to household WEEE would not be practically possible in the time available.

Our view on this has been corroborated through discussions with the JTA and through reviewing information on PCS costs on a confidential one to one basis with producer-led PCSs.

- 7.12 We explain the definition of direct, incremental and avoidable revenue and costs further in Appendix 4.

#### **Data collection**

- 7.13 Calculation of the weighted average net cost of collection for each stream of WEEE (K in the formula above) will require data submissions by PCSs. We set out the key steps we consider represent an effective and appropriate data collection process below.
- 7.14 Following the announcement of the Fee methodology by mid-February<sup>7</sup>, the Administrator will write to all PCSs to:
- (1) invite them to submit net cost data;
  - (2) ask whether or not they wish to use the Fee for each stream; and
  - (3) ask for their target and amount collected in each stream.
- 7.15 The Administrator will also agree terms and conditions with all PCSs submitting data. These terms and conditions will include provisions to ensure confidentiality of data submitted between all parties (including non-disclosure agreements), and a commitment on the part of PCSs to abide by the findings and decisions of the Administrator.

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<sup>7</sup> Guidance for submissions of proposals to BIS for a compliance fee under the WEEE Regulations 2013, BIS.

- 7.16 We consider that to ensure consistency across submissions, PCSs which choose to use the Fee should then submit net cost data to the Administrator using a collection template. We include an example template together with detailed instructions on its completion at Appendix 4 of this report. We understand that from our discussions with the JTA that this information should be readily available to PCSs.
- 7.17 Any PCS then has the option to complete this template with the costs it has incurred in respect of directly collected WEEE in each stream in the compliance year. PCSs may submit data for some streams and not others as appropriate. A PCS that does not need to use the Fee in a stream may nevertheless provide the Administrator with cost data if it wishes. As we explain below, this data will not be used to calculate the Fee, but will be used to verify data submitted by other PCSs. PCSs that expect to use the Fee in a stream are incentivised to submit net cost data, because otherwise they will not be able to use the Fee in that stream.
- 7.18 PCSs will arrange for an independent review of the submitted data. A registered auditor will be engaged by each PCS to provide limited assurance on whether the net cost data provided is misstated, in accordance with a set of agreed upon procedures. A limited assurance engagement provides a moderate level of assurance based on a review of the relevant supporting evidence of the net cost data. It is significantly less costly and time consuming than a full audit. We consider that limited assurance is proportionate in this case. In Appendix 5 to this report we set out the wording of the independent assurance report that would be required.
- 7.19 If a PCS decides to use the Fee, it must submit net cost data to the Administrator before 28 February following the end of the compliance year. This date may need to be flexible, depending on the date on which BIS announce the chosen Fee mechanism. The independent assurance report should be provided along with the data, and a director of the PCS will be required to sign off on the submission to confirm that the data is accurate to the best of his or her knowledge. Data submitted will be accessible only by the Administrator.

#### **Data verification**

- 7.20 After PCSs have submitted data on their net costs, the Administrator will undertake several verification exercises.
- 7.21 The Administrator will first review the independent review opinions on the data submitted by PCSs, and will have the option of contacting each auditor directly to confirm the opinion shown on the submissions. Any data provided with a modified opinion will be rejected.

- 7.22 Net unit costs for each stream will then be compared between PCS submissions to identify any anomalies. Particular regard will be given to the potential effect of related party transactions on net cost data (e.g. if a PCS uses an AATF owned by the same parent company to treat WEEE).
- 7.23 If the Administrator identifies anomalies, it will first ask questions of, or request further data from, the PCS in question. If the Administrator is not able to resolve data anomalies, it has the discretion to request a fuller audit of data, or reject the submission.

**Calculation**

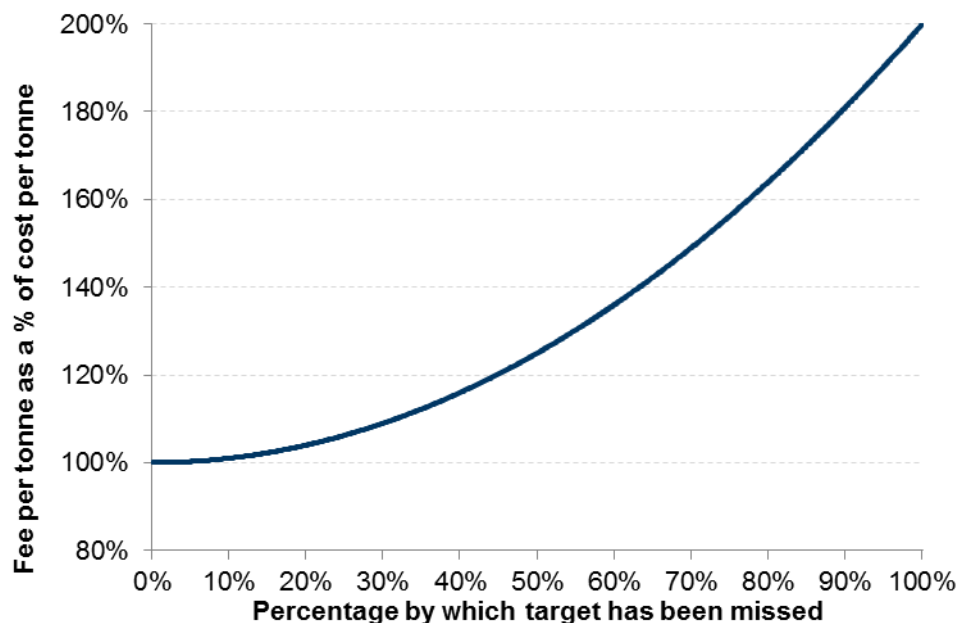
- 7.24 Once data has been received and verified, the Administrator will calculate the Fee for each PCS that needs to use it, as described below.
- 7.25 The Administrator will discard data, by stream, for PCSs that do not wish to use the Fee for that stream. It will then calculate the weighted average direct net cost of collection and treatment for each stream of WEEE. This will be calculated by:
- (1) calculating the total direct net cost incurred in the collection and treatment of that stream of WEEE by PCSs that have shortfall in the stream; and
  - (2) dividing this by the aggregate amount of that stream of WEEE directly collected and treated by those PCSs.
- 7.26 This calculation results in the K parameter, to be used in the formula above, applicable to each stream. There will be six such calculations, assuming at least one PCS needs to use the Fee in every stream. This parameter cannot be negative: if the weighted average net cost of a stream is negative (i.e. there is net income), it will be set to zero.
- 7.27 If no data has been submitted by any PCS that needs to use the Fee for a particular stream, the PCS will not be able to access the Fee. This acts as a clear incentive for PCSs to submit data.
- 7.28 If a PCS applies to the Administrator to use the Fee for a specific stream, but has made no directly managed collections in that stream, it will be unable to provide the collection cost data required by the Administrator. In this case the Administrator will calculate the Fee using data submitted for that stream from any other PCSs. In the unlikely event that no other PCS has submitted relevant data for that stream, the Administrator may make use of any other sources of market data that the Administrator considers appropriate. It should be noted that a PCS who has not provided any cost data, yet wishes to use the Fee, will automatically face the maximum escalator multiplier (as explained below).

- 7.29 Finally, the Administrator will use the formula above to calculate the Fee payable by each PCS in respect of each stream. We attach to this report a Microsoft Excel calculation template that may be used to calculate the applicable Fee(s) for each PCS. The Administrator will then communicate Fee(s) confidentially to the PCS. This should be done by 14 March following the end of the compliance year, giving the PCS two weeks to arrange for payment of the Fee, for the Administrator to certify its receipt, and for the PCS to then issue its declaration of compliance to the relevant agency.

#### ***Escalator mechanism***

- 7.30 The escalator mechanism in the formula has the effect of increasing a PCS's Fee per tonne for a particular stream of WEEE according to the percentage by which the PCS has fallen short of its target in that stream. This mechanism incentivises compliance by collection, because a PCS that falls significantly short of its target will be required to pay a higher Fee per tonne than the cost it would have incurred if it had collected and treated its full target of WEEE.
- 7.31 In the figure below, we illustrate how the Fee per tonne calculated using the formula would change as a PCS moved further from its target.

**Figure 7-1: Effect of escalator mechanism on Fee per tonne**



- 7.32 This figure shows that if a PCS collects no WEEE in a particular stream, its Fee will be double the incremental avoidable cost of collecting the WEEE it would have needed to collect to have met its target. Where a PCS collects some WEEE, but still does not meet its target, its Fee will be between 100% to 200% of cost, as shown above.
- 7.33 We recommend that the methodology includes a non-linear escalator mechanism whereby the Fee per tonne is increasingly high the further a PCS is from achieving its target.
- 7.34 In our opinion, this is fair. Squaring the PCS's percentage shortfall more heavily penalises those PCSs that collect almost nothing, while not unduly harming those that only narrowly miss their target. We consider that it is appropriate that a PCS is more heavily penalised per tonne for being 90% short of its target than it would be if it were 10% short. Falling 10% short could be due to factors beyond the PCS's control, like the target being inadvertently set inappropriately high. Being 90% short should be avoidable.
- 7.35 As a result of this, the mechanism is very effective at incentivising compliance by collection because the Fee increases with every additional tonne of deficit. The size of this increase is more and more severe as the PCS falls further short of its target. This will clearly discourage all PCSs from deliberately under-collecting, even those with relatively high costs. This is directly in line with BIS, UK government and EU objectives, because it ensures that all PCSs will do everything possible to collect and properly treat their full targets of WEEE.
- 7.36 The escalator is also "continuously differentiable". This means that it is smooth and there are no sudden jumps. A more complicated mechanism with, for example, break points, could create market distortions. No such distortions are created by this mechanism.
- 7.37 Finally, it is important to note that despite the curve of the function, the Fee payable by a PCS that has missed its target is always greater than the weighted average cost of collection and treatment of those PCSs that use the Fee. Even if 95% of the PCS's target has already been collected, there is a clear incentive to achieve the full target. The escalator function in the formula serves to increase the effectiveness of the Fee at all shortfalls, particularly in relation to Regulations 43 and 52 where transport costs are not obligated.
- 7.38 In our view, a non-linear escalator is appropriate and helps enhance the effectiveness of the methodology, consistent with BIS guidance.

***Large Household Appliances***

- 7.39 We understand from our discussions with the JTA and our review of the market that LHAs overwhelmingly provide a net income, rather than a net cost, for those who collect and treat them. As a result of this, a significant amount of LHAs are outside of the producer-financed WEEE system, and the LHAs that are in the producer-financed WEEE system are typically the least valuable (e.g. geographically remote).
- 7.40 It is therefore possible that PCSs, on average, incur a net cost in the collection and treatment of the LHAs that have been made available to them, in spite of this being on average a valuable stream. This would lead to a punitive Fee for LHA shortfalls that is not cost-reflective.
- 7.41 We consider that the compliance fee for LHAs should be set to zero, irrespective of the costs PCSs incur in collecting the LHAs made available to them. We consider this appropriate, because:
- (1) it precludes the market distortion described above;
  - (2) PCSs will still be incentivised to collect and treat valuable LHAs, because they are able to make a profit doing so;
  - (3) PCSs will still collect less valuable LHAs, because DCFs have a right of free uplift; and
  - (4) administrative costs will be reduced, as less data will need to be collected and processed by the Administrator.

### **Summary of timeline**

7.42 In Table 7-1 below, we summarise the timeline outlined above.

**Table 7-1: Summary of methodology timeline**

<b>Date</b>	<b>Step</b>
31 December	End of compliance year
Mid February	BIS announces the Fee methodology The Administrator sends the net cost template to all PCSs
28 February	Deadline for submission of net cost data and for PCSs to inform the Administrator whether they wish to use the Fee in each stream
1 March to 13 March	The Administrator performs verification exercises on submitted data and calculates the Fee(s) payable for each PCS
14 March	Deadline for the Administrator to inform each PCS of their Fee for each stream
14 March to 31 March	PCSs pay the Fee (if applicable) and the Administrator issues a Compliance Fee Payment Certificate to those PCSs who have paid the assessed Fee into the nominated bank account
31 March	PCSs make declarations of compliance, including a copy of the Compliance Fee Payment Certificate if applicable

### **Rationale for methodology**

7.43 Below, we set out the rationale for this calculation methodology by reference to the criteria discussed in Section 5.

#### **Effective and cost reflective**

7.44 In its guidance, BIS explains that the Fee must incentivise PCSs to comply with their obligations by collecting and treating WEEE via DCF collections, or by returning WEEE from private households to the system (under Regulations 43 and/or 52). The methodology set out above will incentivise both of these methods of compliance, as we explain below.

- 7.45 Firstly, DCFs have a right of free uplift of WEEE. This means that all WEEE will be collected from DCFs regardless of the level of the Fee. The benefit of the methodology above is that:
- (1) it encourages PCSs to actively seek to collect WEEE from DCFs up to their targets. This is because the Fee payable by the PCS for any shortfall against target will always be greater than the marginal cost of collection and treatment, because it is set greater than the average costs of those who need to use the Fee. As a PCS's shortfall increases, the escalator mechanism increases the Fee, further incentivising collection;
  - (2) it discourages over-collection of net cost WEEE, because there is no financial or other benefit to a PCS for collecting more than its target (unlike under the previous WEEE Regulations); and
  - (3) it is ultimately based on the actual costs incurred by PCSs in the compliance year. This means that the Fee, if it is payable, will be sensible and proportionate to costs. The market distortions characterised by high prices for evidence notes seen under the previous WEEE Regulations will not be repeated.
- 7.46 The methodology will also encourage the returning of WEEE from private households to the system (under Regulations 43 and/or 52), where there is no right of free uplift. For collections under Regulations 43 and/or 52, the cost of transport is not an obligated cost for producers, and so the overall cost of collection and treatment will invariably be lower than the cost of a DCF collection. As the Fee is set predominantly by reference to DCF collection costs – we understand that in 2013, some 80% of collections were from DCFs – the Fee will be significantly higher than the cost of WEEE arising under Regulation 43 or 52. The Fee is therefore particularly effective at incentivising non-DCF collections, because undertaking these collections will be cheaper for PCSs than paying the Fee.
- 7.47 Under both routes of collection, it is important to note that while the Fee may be set to zero for certain value streams, PCSs are still incentivised to collect and treat up to and beyond their targets because of the income that value streams can offer.
- 7.48 Overall, the Fee is **cost reflective**, and **effective** at incentivising compliance by collection. The harmful externalities associated with untreated WEEE will be reduced under this methodology, without the creation of undesirable market distortions arising from a Fee mechanism that is not proportionate to costs.



***Transparent***

- 7.49 The calculation methodology is straightforward, and it will be comprehensible to all PCSs. All PCSs will understand what the Administrator is doing with data submissions, and those PCSs that wish to use the Fee will understand how their Fee has been calculated.
- 7.50 The methodology also maintains confidentiality, by requiring that all data is submitted so that it is only accessible by the Administrator. At no point do PCSs have access to the data of other PCSs. Those PCSs that wish to use the Fee will see a weighted average net cost figure, but they will be unable to derive any confidential information from this average figure because they will not know which other PCS' data has contributed to the calculation.
- 7.51 The methodology is therefore **transparent**.

***Feasible and reasonable***

- 7.52 We understand from our discussions with the JTA that completing the net cost template at Appendix 4 of this report should be possible for all PCSs. We consider that the limited assurance requirement is proportionate given the limited time constraint (see Section 5), and will help ensure the accuracy of data submissions while not being unduly burdensome. We have verified this by piloting the proposed methodology using data separately supplied to us in a confidential manner by three PCSs. We were able to calculate the Fee for each stream where applicable without any issues. As a result of this pilot we made minor changes to Appendix 4 included in this final version of the report.
- 7.53 The Administrator will be required to engage with PCSs and verify and calculate data, but we do not consider that the cost of this service will be unreasonable given the overall merit of the methodology.
- 7.54 As a result, we consider that the methodology is **feasible** and **reasonable**.

***Robust***

- 7.55 Under this methodology, the only way that a PCS can manipulate its own Fee or that of other PCSs is by submitting misstated data. The methodology includes several steps to prevent this happening:
- (1) all data submissions must be subject to an independent review by a registered auditor, which will be confirmed by the Administrator;
  - (2) a director of the PCS is required to sign off on all data submissions to verify that the data is true and fair to the best of his or her knowledge;

- (3) all data submissions will be reviewed by the Administrator. The Administrator will compare data submissions between PCSs to identify any anomalies. Anomalies will be investigated with PCSs; and
  - (4) the Administrator has the right to ask questions of PCSs, request further data, request a full audit of data or reject a submission.
- 7.56 In addition, only data from those PCSs that wish to use the Fee will be included in the weighted average net cost calculation for each stream. This means that a PCS that has met its target is not able to submit high cost data simply to increase the Fees of others, because its data will be discarded before the averaging calculation.
- 7.57 In summary, in our opinion it would be extremely difficult for any PCS to manipulate this Fee mechanism. It is therefore **robust**.

### **Competition**

- 7.58 One competitive benefit of this Fee methodology is that all PCSs will be incentivised to be as efficient as possible so as to reduce costs, as this is the only way a PCS can lower its own Fee. This acts as an incentive for innovation rather than a barrier to innovation for all operators.
- 7.59 Secondly, a PCS cannot make any conclusions from how its own costs compare to the weighted average cost figure, because it does not know the composition of the average. The PCS will only be able to infer that there is at least one other PCS with higher or lower costs. This will help improve market efficiency and competition.
- 7.60 Thirdly, there are no barriers to entry created by the system. New entrants to the market will face the same Fee as existing participants. This is fair.
- 7.61 In our view, as economists and accountants, this methodology will have a **positive effect on competition**.

### **Precedent**

- 7.62 If calculated using this methodology, the Fee will be comparable to the civil penalties for noncompliance applicable under the Environmental Protection Act, the Regulation Enforcement Sanctions Act, the US Clean Air Act and other US environmental legislation, in that it removes the economic benefit of non-compliance and incorporates an additional cost depending on the gravity of the violation. There is considerable precedent for a regulatory methodology of this nature.

### **Summary**

- 7.63 In summary, we consider that this is the methodology with the most merit, and is the only methodology that meets each of the criteria outlined in Section 5.

- 7.64 In particular, this methodology will incentivise compliance by collection (through DCFs and via Regulations 43 and/or 52s), helping to reduce the negative externalities associated with untreated WEEE without introducing undesirable market distortions.
- 7.65 The mechanism is also practical, not unduly burdensome for either PCSs or BIS, and it is easy for all stakeholders to understand. It would also be very difficult to manipulate the system under this methodology. Lastly, it will help improve competition in the WEEE market, in particular by incentivising PCSs to operate more efficiently.
- 7.66 We consider that this methodology should be adopted under Regulation 76 of the WEEE Regulations.

## Appendix 1 FTI Consulting experience

- A1.1 FTI Consulting is a global business advisory firm that provides multidisciplinary solutions to complex challenges and opportunities. We frequently work with trade bodies, regulators, government entities and companies to consider issues in relation to price setting and cost allocation, and to provide competition and regulatory advice. This experience is directly relevant to determining a methodology for the Fee.
- A1.2 In the table below, we set out our selected experience in issues relevant to a consideration of the Fee.
- A1.3 At the end of this appendix we attach the CVs of the core team members who have worked on this engagement, Navin Waghe and Benjamin Johnson.

**Table A1-1: FTI Consulting experience**

Project	FTI Consulting role
<b>Competition policy/investigation</b>	
PCS v WEEE recycler	Instructed in a competition law dispute between a PCS and a recycler of WEEE. We quantified the losses allegedly suffered by the claimant as a result of the alleged abuse.
BT vs Sky	Providing written expert and oral evidence in a pricing dispute between BT and Sky, heard before the UK Competition Appeals Tribunal in 2011. The case related to the price at which BT gained access to Sky Sports 1 & 2.
Ethernet service charges	Providing written expert and oral evidence in a pricing dispute between Sky, TalkTalk, Virgin Media, Cable & Wireless and Verizon and BT regarding BT's charges for Ethernet services.
Excessive pricing in South Africa	Providing written expert and oral evidence in an excessive pricing dispute between the Competition Commission of South Africa and a large energy and chemicals company.
Excessive pricing of a UK port	Providing written expert evidence in relation to an excessive pricing dispute involving two oil companies and a UK port.
Excessive pricing of a UK airport	Providing written expert and oral evidence in a pricing dispute between an airport and an airline.
Ofcom	Assisting the UK communications regulator (Ofcom) in a major Competition Act investigation into BT's pricing of its broadband

<b>Project</b>	<b>FTI Consulting role</b>
	services.
Excessive pricing of calls	Conducting financial investigations into whether an operator's pricing of calls to hospital patients was excessive.
Costs and pricing in the Milk supply industry	Producing expert evidence to the UK Competition Appeals Tribunal related to a decision by the Office of Fair Trading to close an investigation into alleged anti-competitive actions in the milk supply industry relating to the pricing of certain products.
Excessive pricing of US technology corporation	Providing advice to a US global technology corporation in the context of an EC excessive pricing review. The review focused on specific product prices and the treatment of R&D costs and the appropriate allocation principles to be applied to joint and common costs.
Sanofi-Aventis	Advising Sanofi-Aventis during a competition investigation regarding alleged predatory practices in the pharmaceutical industry in front of the French Competition Council.
European stock exchange	Advising a major European stock exchange during a European Commission investigation into potential predatory practices in securities trading.
Network Rail	Advising Network Rail in preparation for a potential appeal to the Competition Commission during the price control review for the period 2009-2014.
Telefonica	Advising Telefonica during an investigation into alleged price fixing in mobile telephony.
Electronic products	Advising an electronic goods manufacturer regarding an allegation of resale price maintenance.
Standard and Poor's (S&P)	Advising S&P during a EC investigation into its CUSIP Service Bureau.
Correos	Advising the Spanish postal operator on a range of issues associated with competition cases, pricing and the liberalisation of downstream access.
<b>Price controls/price setting</b>	
Gas company	Advising a gas company on aspects of regulation, particularly in relation to its gas transportation network, regulatory best practice in relation to price controls, the form of controls, the structure of controls and the value of its asset base.
Ofgem	Advising on three retail gas price controls.
Electricity distribution company	Performing a detailed review of an electricity distribution company during the 2009 price control, to assess whether there was sufficient grounds for appeal Ofgem's price control determination

<b>Project</b>	<b>FTI Consulting role</b>
	to the UK Competition Commission.
Water company	Advising a water company on its price control determination, and on whether there were grounds to appeal Ofwat's decision to the UK Competition Commission.
Bristol Water	Advising Bristol Water on price control matters during the PR09 review.
Postcomm	Developing a price control financial model to determine the total level of allowable revenues over a price control and for testing different tariff structure options.
Gatwick Airport	Engaged by Gatwick Airport to assist with the Q6 price control. Asked to assess prices on a long run incremental (LRIC) basis.
Royal Mail	Advising Royal Mail on a range of price control issues.
Ofgem	Advising Ofgem on Transco's future costs for the purpose of setting regulated prices.
WICS	Helping design the methodology for WICS to calculate the wholesale charges applying to pre-existing non-standard tariff agreements.
Electricity price regulation in Oman	Appointed by the regulator in Oman to determine regulated electricity prices.
Credit card pricing of a UK retail bank	Assisting a major UK Retail Bank with their credit card pricing and marketing strategy.
Royal Mail's zonal pricing	Reviewing Royal Mail's underlying costs from its application to allow postal prices to vary according to delivery zones for Postcomm.
Northern Ireland water price controls	Supporting Northern Ireland Authority for Utility Regulation in setting a price control for Northern Ireland Water ("NIW").
Price control review of television transmission charges	Our expert worked with the Independent Television Association in the UK on the preparation of submissions to the Office of Telecommunications (OFTEL) in connection with the price control review of the National Telecommunications' television transmission charges.
Railway infrastructure access charges	Producing an independent expert report submitted to a court in an EU member state in Eastern Europe in the context of a dispute over the appropriate calculation of railway infrastructure access charges.
Port access pricing	Providing advice to a port user on the determination of a reasonable tariff for the exclusive use of a dedicated port facility that is essential to the company's operations.

<b>Project</b>	<b>FTI Consulting role</b>
Express parcel transportation pricing	Advising a franchisor in the express parcel sector engaged in a dispute with its franchisees over the level of network transportation charges.
Tariff setting of a broadcast transmission network operator	Providing advice to a European broadcast transmission network operator on the development of a tariff structure for the introduction of digital terrestrial television.
Broadcast transmission network access pricing	Providing advice to a European broadcast transmission network operator on the level of charges it levied to an independent TV channel in the late 1990's and early 2000's in the context of a claim for excessive pricing.
Resale price maintenance on branded medicines	The case concerned resale price maintenance on branded non-prescription medicines, and its impacts on competition and profitability at the manufacturer and retailer levels.
Rail access charges in Estonia	Appointed as an expert by the High Court of Tallinn in connection with a dispute over rail access charges in Estonia for freight operators.
PowerGas, Singapore	Advising PowerGas in the design and implementation of a set of transportation tariffs for Singapore's gas transportation company, in preparation for the opening of the liberalised gas market.
<b>Cost allocation</b>	
Channel Tunnel	Advising in a dispute relating to the appropriate method of allocating common costs to different elements of this major construction project.
Postcomm	Developing a set of best practice principles for allocating costs between Royal Mail's business units and to products.
Allocation of costs of a UK television and radio transmission provider	Advising a UK provider of television and radio transmission and broadcasting services and facilities on the allocation of costs between services and on the level and structure of charges.
Costing and profitability of a UK car component manufacturer	Applying activity-based costing principles to assist a UK car component manufacturer to assess the profitability of different customers and part types.
Scottish Hydro-Electric cost allocation	Advice on the allocation of costs between the generation, transmission, distribution, supply, and non-electricity businesses of Scottish Hydro-Electric.
Allocation of costs of a television and radio transmission provider	Advising the monopoly provider of television and radio transmission and broadcasting services and facilities in a large West European country on the allocation of costs between

<b>Project</b>	<b>FTI Consulting role</b>
	services.
Cost allocation in Slovenian postal sector	Providing advice to the postal regulator in Slovenia on cost allocation and regulatory financial reporting issues.
Air transport industry cost allocation	Assessment of BAA's revenue and cost allocation processes.
Cost forecasting and allocation	Developing models to forecast and allocate costs to inform commercial and regulatory pricing decisions for client in the Middle East.
Groupement des Cartes Bancaires (GCB)	Developing cost models for card payment and cash withdrawal and a tourist-test analysis on the basis of third-party retailer data.



# Navin Waghe

## Managing Director – Economic and Financial Consulting

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### **CERTIFICATIONS**

Chartered Accountant

### **PROFESSIONAL AFFILIATIONS**

Fellow of the ICAEW

### **EDUCATION**

BSc (Hons) Management  
Science, UMIST, 1998

### **Previous Positions**

LECG Ltd, Principal, 2004-2011

PricewaterhouseCoopers,  
Executive, November 1998 –  
December 2003

Navin Waghe is a Managing Director in the FTI Consulting Economic and Financial Consulting practice based in London. Navin joined FTI Consulting in April 2011.

Prior to FTI Consulting, Navin Waghe joined LECG in January 2004 having spent five years working for PricewaterhouseCoopers, in their assurance and business advisory department where he became a fully qualified Chartered Accountant. Navin has worked on a variety of clients within the Financial Services sector leading teams on audits and various special work, with particular emphasis on Insurance, Reinsurance and Investment Management.

Navin has extensive experience of working for a range of clients across different sectors. He is considered an Expert specialising in providing advice in relation to assessing losses, valuation, pricing, industry frameworks, regulatory reviews, and cost allocation.

During his 16 years in consultancy, Navin has undertaken a wide range of assignments globally, specialising in the areas of pricing, regulation, competition, valuation, economic and financial analysis, and damage analysis. Navin has performed financial assessments and managing valuations in a variety of contexts, in particular in dispute contexts, for expert determination, litigation, and arbitration purposes. He has worked on matters before the UK High Court, the AAA, UNCITRAL and ICC arbitration forums, the Upper Tax Tribunal, and in mediation.

Navin's project experience has included a number of complex negotiation and damages projects in a litigation/arbitration setting. His roles have involved acting as the Expert and the production of independent expert reports for submission to government departments, competition commissions, courts, arbitral panels, and regulatory bodies

Additionally, Navin is an expert on providing competition and regulatory advice, particularly in relation to pricing issues, price controls, cost allocation and accounting separation.

Navin has led teams in relation profitability and excessive pricing cases in the Healthcare, Technology, and Financial Services sectors. In addition, to understanding the relevant tests these competition investigations have focused on the appropriate pricing considering the treatment been of specific capital and operating expenditure including R&D costs, intangible assets, IT costs, joint and common costs.

## Professional Experience

### Dispute Consulting

- Appointed as expert in relation to a BIT dispute between a Middle Eastern government and a Turkish investor.
- Acted as expert in relation to a dispute between partners within a law firm and the appropriate distribution of profits.
- Providing advice in relation to the assessment of losses in a dispute between property investors and an independent UK Government department.
- Providing advice in relation to a breach of contract dispute between two television companies.
- Provided advice in relation to a large Expert Determination between two market research firms.
- Advice in relation to cost allocation and asset valuation issues in the context of a dispute over the calculation of regulated rail access charges in an East European country. The project involved identifying and explaining to the Tribunal the complex mechanism set out in the contractual documents and investigating how it had in fact been operated by reference to the accounting vouchers and records of the Parties.
- Advised a client in the preparation of submissions in an Expert Determination in relation to the appropriate completion accounts to be determined on the sale of a metal business.
- Led the team in relation to a dispute between a UK airport and an airline on the appropriate level of airport charges.
- Advice in relation to a dispute between BT and Sky regarding Pay TV access charges. The case was heard before the UK Competition Appeal Tribunal, and related to the price at which BT should gain access to Sky Sports 1 & 2.
- Advise in relation to the expropriation under a BIT of a Turkish Investors investment in a cotton factory in Turkmenistan.
- Led the team in relation to assessing the losses suffered by a group of investors in Turkmenistan arising from the behaviour of the Turkmen government under a BIT and customary international law.
- Led the team in an Expert Determination in the context of a dispute between two beverage distributors relating to the breach of terms of a joint venture agreement.
- Advice in relation to an arbitration regarding the alleged expropriation of a European distribution agreement in the fashion sector.
- Advice in relation to losses arising from a dispute regarding a failed distribution agreement in the technology and electronics sector. The case was heard before the American Arbitration Association
- Advice in relation to an arbitration between two football clubs pursuant to Rule K of the rules of the Football Association.
- Advice in relation to assessment of the losses arising from a complex dispute under UNCITRAL Arbitration rules relating to a loss of profits case involving a mobile phone operator in the Middle East.
- Assisted in the preparation of an expert report relating a commercial dispute in the Indian Electronics sector.
- Managed the assessment of a negotiation in the context of a complex reattribution and the subsequent offer between a major insurance group and policyholders.
- Led the team in relation to the defence of a senior bank executive in relation to action brought by the FSA and his appeal against a ruling by the RDC.
- Led the team in relation to assessing a dispute on the correct interpretation of the instruments used to effect a transaction entered into by an Irish company disputing a tax assessment on that transaction with the Irish Revenue Commissioners.
- Led the team in relation to a dispute between Credit Union and a bond provider concerning lost investments as a result of the misrepresentation of certain bonds by the provider.
- Built a complex pensions block liability model for a group of investors. This work involved modelling the key pension drivers and actuarial assumptions to generate a model that derived business value, regulatory capital requirements and key pension financials for numerous investment scenarios.
- Provided advice in relation to a dispute between a group of shareholder of a top tier premier league football club and the holding company.

- Assisted in the preparation of an expert report in relation into a dispute in the context of a joint venture between two banks an alleged misrepresentation of information.

### Economic and regulatory consulting

- Acted as Expert in providing advice in relation to profitability in the context of the Competition Commission's investigation into payday lending.
- Acting as Expert in providing advice to a large Energy generation and supply company in the context of the Competition and Markets Authority energy market investigation.
- Assessing the value of intangible assets in the context of a Competition Commission investigation in the healthcare sector.
- Providing advice in relation to a Competition Commission investigation into the profitability of hospitals in South Africa.
- Providing advice in relation to a Competition Commission investigation into the profitability of hospitals in South Africa.
- Assisting a large investment bank in relation to a Competition Commission LIBOR investigation into product profitability.
- Provided advice to a US global technology corporation in the context of an EC excessive pricing review. The review focused on specific product prices and the treatment of R&D costs and the appropriate allocation principles to be applied to joint and common costs.
- In the context of EC investigation, led the team in assessing the appropriate cost reflective prices to be applied to a global financial services information provider's products. The review involved assessing appropriate cost allocation principles and building a cost allocation model to determine appropriate prices.
- Performed a review of the financial cost of the universal service obligation on Royal Mail's profits for Postcomm.
- Undertook an efficiency review and developed a price control financial model for Postcomm.
- Reviewed Royal Mail's underlying costs from its application to allow postal prices to vary according to delivery zones for Postcomm.
- Assisted the CAA in performing a review of NERL's costs, efficiency forecasts and business plans in relation to the third price control.
- Performed an assessment of BAA's revenue and cost allocation processes in relation to its price control review. The project involved the development of a framework to assess the fair allocation of costs between designated airports and the construction of a complex cost allocation model to support regulatory policy.
- Provided advice to Royal Mail in relation to the price control covering the period 2011-16.  
Engaged by Royal Mail to provide finance, accounting, and economic advice in relation to Royal Mail's Strategic Plan.
- Led the team performing econometric and financial analysis for Royal Mail to inform senior management on the internal performance of Royal Mail's various pipeline activities..
- Provided consultancy support directly to Postcomm's Chairman and management team in relation to the Government's Independent Review of the UK Postal market.
- For Postcomm, led the team in forensically analysing Royal Mail's financial position and comparing it to previous forecasts, to identify the underlying causes of weaker financial viability.
- For Postcomm, retained to develop a price control financial model to determine the total level of allowable revenues over the current price control and for testing different tariff structure options.
- Advised WICS, the water industry regulator in Scotland. Provided advice on process for the upcoming strategic review of prices and performed a review of the state of separation between Scottish Water and Scottish Water Business Stream.

# Ben Johnson

Senior Consultant – Economic and Financial Consulting

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## CERTIFICATIONS

Chartered Accountant

## PROFESSIONAL AFFILIATIONS

Member of the Institute of  
Chartered Accountants in  
England and Wales

## EDUCATION

BSc (Hons) Economics,  
University of Warwick

## LANGUAGES

English (native)

Mandarin Chinese  
(basic/intermediate)

Ben Johnson is a Senior Consultant in FTI Consulting's Economic and Financial Consulting practice, based in London. Ben joined FTI Consulting in 2011. Prior to this, he worked in the European financial advisory services practice of LECG.

Over the last four years Ben has provided economic and financial advice to a range of developed and emerging market clients. Ben's experience includes business valuations, post-acquisition disputes, loss of profit claims, competition investigations, regulatory advice and expert determinations. He has worked across industries including petrochemicals, fashion, energy, financial services, real estate and telecoms.

In contentious matters, Ben has prepared reports for submission to the UK High Court, the Upper Tribunal and the Irish High Court, as well as in arbitrations under the rules of the ICC, AAA, UNCITRAL and CRCICA.

Ben also has experience in producing and delivering training courses on theoretical finance, financial modelling and damages issues to other consultants and law firms.

Ben is an economist and a chartered accountant. Ben's final year ACA examination results placed him in the 99.8th percentile worldwide, and he was listed in the ICAEW's 2013 Advanced Stage Annual International Order of Merit. Ben also holds a first-class honours degree in Economics from the University of Warwick, and has studied Mandarin Chinese at East China Normal University in Shanghai.

## Previous Positions

LECG Ltd, Research Analyst in European financial advisory services practice

## Professional Experience

### Disputes

#### **Commercial property investment, UK, litigation before the High Court, Queen's Bench Division:**

Advice on the quantification of a commercial property investor's loss and damage from the breakdown of an arrangement to refinance a portfolio of property investments. Ben led a team in assessing the loss in the context of market conditions. He also acted as a point of contact for the client. His work led directly to a favourable settlement for the client.

#### **Sovereign wealth funds, UK, litigation before the High Court, Queen's Bench Division:**

Advice on the quantification of an investor's loss of chance to profit from transactions with sovereign wealth funds. Ben acted as a point of contact for the client, and led a team to assess the profit from hypothetical sovereign wealth fund transactions. Following submission of the report, the claimant accepted a settlement offer.

#### **Combined-cycle power station, UK, litigation before the High Court, Technology and Construction Court:**

Advice on the quantification of the claimants' loss and damage from an alleged breach of warranty in a post-acquisition dispute involving one of the largest power stations in Europe. Ben led a team in assessing the profit lost as a result of the alleged breaches and acted as a point of contact for the client. Ben also built a bespoke financial and operational model that was used in settlement negotiations.

#### **Television, UK, litigation before the High Court, Queen's Bench Division:**

Expert report on the quantification of the losses suffered by the claimant and counterclaimant following an unsuccessful agreement to develop reality television programmes. Ben provided analysis, acted as a point of contact for the client and drafted the expert report.

#### **Container port, Turkey, arbitration under the rules of the International Court of Arbitration of the ICC:**

Three expert reports and a joint statement on the damages suffered by the claimant as a consequence of the loss of an indirect interest in a project to construct and operate a container port on the Sea of Marmara. Ben was responsible for financial modelling and drafting sections of the reports.

#### **Telecoms, Egypt, arbitration under the rules of the Cairo Regional Centre for International Commercial Arbitration:**

Expert report on the quantification of the claimant's loss and damage from a failed venture to install satellite and wireless telephone services across Egypt. Ben led a team in producing financial analysis of lost profits.

#### **Specialist steel manufacturer, France,**

**completion accounts dispute:** Advice in the context of a sale and purchase dispute relating to the completion accounts of a large European steel manufacturer. Ben reviewed the complex accounting issues in dispute and drafted sections of the client's written submissions.

#### **Agricultural investment, Turkmenistan,**

**arbitration under UNCITRAL rules:** Two expert reports on the financial and moral damages suffered by a foreign investor arising from the alleged expropriation of agricultural assets by the government of Turkmenistan. Ben was responsible for financial analysis and drafting the reports.

#### **Petrochemicals, United States, arbitration under the rules of the International Court of Arbitration of the ICC:**

Expert report on the quantification of incremental costs incurred by a multinational chemical company as a result of a failure of a joint venture valued at \$15 billion. Ben was responsible for financial analysis on issues including the credit rating of debt instruments, the cost of incremental equity and other expenses.



**Automotive distribution, Egypt, arbitration under the rules of the Cairo Regional Centre for International Commercial Arbitration:** Expert report on the damages suffered by the claimant as a result of the alleged wrongful termination of an automotive distribution agreement. Ben led a team in building a financial model and drafting sections of the report.

**Construction and manufacturing firms, Turkmenistan, damages claims under a Bilateral Investment Treaty:** Advice on the quantification of foreign investors' alleged losses as a result of the actions of the government of Turkmenistan. Ben provided financial analysis, research and evidence evaluation in support of the claims.

**Financial services, UK, FSA conduct investigation before the Upper Tribunal:** Two expert reports and a joint statement relating to allegations of misconduct on the part of a senior bank executive brought about by the FSA. Ben was responsible for drafting the reports and supporting the testifying expert. Ben also acted as a point of contact for the client.

**Financial services, Ireland, litigation before the High Court:** Three expert reports on the quantification of losses suffered by subordinated debt holders following a liability management exercise in the financial services industry. Ben was responsible for financial analysis and research tasks.

**Sports apparel distribution, Europe, arbitration under the rules of the American Arbitration Association:** Expert report on the quantification of alleged loss and damage suffered by a European distributor of branded sports apparel following alleged infringing imports.

**Financial services software, Ireland, litigation before the High Court of Ireland:** Advice on the claimant's alleged loss and damage arising from delays and errors in the installation and operation of computer software at a major Irish bank.

**Renewable energy, UK, Massachusetts Business Court:** Advice on the risks faced by a renewable generator following the introduction of the UK government's incentive scheme (the Renewables Obligation).

**Financial services, Australia, litigation before the Federal Court of Australia:** Expert report on the credit ratings assigned to complex structured financial products during the global financial crisis.

## Regulation and competition

**Energy, UK, market investigation by the Competition and Markets Authority:** Analysis and advice in ongoing competition policy investigation into energy market. Ben's work is focused on the profitability of vertically integrated energy firms.

**Financial services, UK, market investigation by the Competition Commission:** Analysis and advice in the context of a competition policy investigation into financial services firms. Ben provided analysis and drafted submissions on profitability issues.

**Telecoms, Article 102 investigation by the European Commission:** Advice on appropriate cost allocation in the context of a predatory pricing investigation into a multinational telecommunications firm. Issues considered included Average Avoidable Cost and Long Run Average Incremental Cost, using cost drivers including equi-proportional mark-up. Ben provided research and analysis, and prepared a presentation to the client.

**Natural gas, Europe, Article 102 investigation by the European Commission:** Analysis of gas contract pricing in the context of an excessive pricing investigation. Ben performed financial analysis on the historical pricing strategy.

## **Appendix 2**

### **Sources of information**

- A2.1 In preparing this report, we have relied on the following sources of information:
- European Parliament Directive 2012/19/EU on WEEE, July 2012
  - BIS, WEEE System Impact Assessment, January 2013
  - BIS, Implementation of the WEEE recast directive: Consultation, April 2013
  - BIS, Implementation of the WEEE recast directive: Summary of Responses to Consultation, August 2013
  - BIS, Implementation of the WEEE recast directive: Government Response to Consultation, October 2013
  - BIS, WEEE Regulations, Government Guidance Notes, March 2014
  - The WEEE Regulations, December 2013
  - BIS, Guidance for Submission of Proposals to BIS for a Compliance Fee under the WEEE Regulations, April 2014
  - BIS, Guidance on submitting proposals for a WEEE Compliance Fee Methodology, August 2014
- A2.2 We have also discussed our work with the JTA.

## Appendix 3

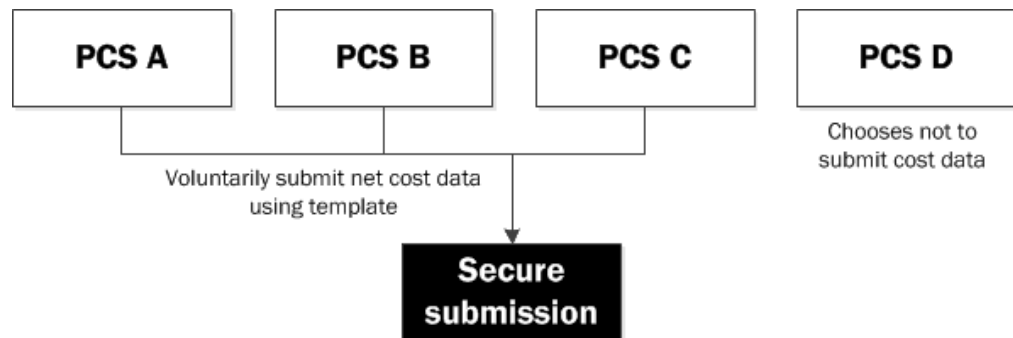
### Illustrative calculation of the Fee

#### Introduction

- A3.1 In this appendix, we provide an illustrative example of how the Fee would be calculated using the methodology above for fictional PCSs with different circumstances.
- A3.2 For the purpose of simplicity, the example below relates to four PCSs and one unidentified stream of WEEE. In reality, the Fee may need to be calculated for all PCSs and for six streams of WEEE.
- A3.3 The data used in this example has been created using a random number generator. It is not based on the actual costs of any PCS for any stream of WEEE.

#### Step 1 – Submission of data

- A3.4 In mid-February following the end of the compliance year, the Administrator will send to all PCSs the net cost submission template at Appendix 4. PCSs may choose to submit their net costs using this template. As discussed in Section 7, the submission should be accompanied with limited assurance from a registered auditor.



- A3.5 In this example, PCS D chooses not to submit data. This means that PCS D will not have access to the Fee.



- A3.6 At the same time, PCSs submit to the Administrator their target, amount collected and whether or not they wish to use the Fee in each stream.

PCS	A	B	C	D
WEEE Collected (tonnes)	100	115	20	360
Target (tonnes)	120	110	120	300
Wishes to use the Fee	Yes	No	Yes	No

### Step 2 – Verification of data

- A3.7 The Administrator will then collate and seek to verify the data submitted, as shown in the diagram below.

PCS	A	B	C	D
WEEE Collected (tonnes)	100	115	20	n/a
Net cost (£)	£10,591	£12,612	£1,813	n/a
Net cost per tonne (£/t)	£105.91	£109.67	£90.65	n/a

Review auditors' opinion on all submissions

Identify and investigate apparent anomalies

- A3.8 The Administrator must be confident that no overstated or understated data has been submitted. The Administrator has the right to ask questions, request further information or request a full audit of data.
- A3.9 If the Administrator has any reason to believe data is misstated (in either direction), it may reject the submission.
- A3.10 A PCS is not informed if the Administrator rejects its data submission.

### Step 3 – Calculation of weighted average net cost

- A3.11 The Administrator will then calculate the weighted average net cost per tonne for the stream of WEEE using data from only those PCSs that wish to use the Fee, as shown below.

PCS	A	B	C	D	Total
WEEE Collected (tonnes)	100	n/a	20	n/a	120
Net cost (£)	£10,591	n/a	£1,813	n/a	£12,404
Net cost per tonne (£/t)	£105.91	n/a	£90.65	n/a	£103.37

- A3.12 Data from PCSs that do not wish to use the Fee (PCSs B and D in this example) are discarded.

#### Step 4 – Calculation of Fee for each PCS

- A3.13 Finally, the Administrator will calculate the Fee for each PCS using the formula in Section 7. Example calculations for PCS A and C are shown below.

$$f_n = k_n \times (t_n - c_n) \times \left( 1 + \left( \frac{t_n - c_n}{t_n} \right)^2 \right)$$

$$\text{A: } f_1 = \text{£}103.37 \times (120 - 100) \times \left( 1 + \left( \frac{120 - 100}{120} \right)^2 \right) = \text{£}2,125 \equiv \text{£}106.24 \text{ per tonne}$$

$$\text{C: } f_1 = \text{£}103.37 \times (120 - 20) \times \left( 1 + \left( \frac{120 - 20}{120} \right)^2 \right) = \text{£}17,515 \equiv \text{£}175.15 \text{ per tonne}$$

- A3.14 In this example, PCS C will pay a higher Fee per tonne than PCS A. This is because PCS A collected 83% of its target, while PCS C collected 17% of its target.
- A3.15 Both PCSs pay a Fee in excess of the weighted average cost of collection (£103.37 per tonne). Both have incurred a financial loss by paying the Fee instead of collecting their full target of WEEE.

## Appendix 4

### Pro forma template for collecting cost information from PCSs

Template (attached to this report in Excel format for ease of use)

PCS NAME				
SHORTFALL / SURPLUS	Target WEEE collection target	Evidence Total WEEE Evidence received		
Unit	tonnes	tonnes		
1 January to 31 December 2014 - For submission on or before 28 February 2015				
A - Large Household Appliances				
B - Cooling Appliances Containing Refrigerants				
C - Display Equipment				
D - Lamps				
E - Small Mixed WEEE				
F - Photovoltaics				

NET COST OF DIRECTLY COLLECTED WEEE	Collected Amount of WEEE directly collected	Costs Total direct costs of collection, transport and treatment	Income Gross income from resale or reuse of parts	Net cost Total direct costs minus gross income
Unit	tonnes	£	£	£
1 January to 31 December 2014 - For submission on or before 28 February 2015				
A - Large Household Appliances	n/a	n/a	n/a	n/a
B - Cooling Appliances Containing Refrigerants				£0.00
C - Display Equipment				£0.00
D - Lamps				£0.00
E - Small Mixed WEEE				£0.00
F - Photovoltaics				£0.00

#### Instructions for completion of template

- A4.1 This template is intended to capture the costs and revenues attributable to the direct collection of each stream of WEEE in the period specified.
- A4.2 Costs and revenues should be entered into the template if and only if they are direct, incremental and avoidable in relation to the collections of that stream of WEEE undertaken in the period.

- A4.3 Direct collections are those under the direct control of the PCS, where the PCS has been contracted to undertake and directly manage the collection and treatment activity and can choose the collection and treatment providers. Costs relating to evidence obtained through other routes (e.g. directly purchased from AATFs or third parties such as PCSs or waste management companies contracting with AATFs), where the PCS has not been contracted to undertake and directly manage the collection and treatment activity and cannot choose the collection and treatment providers, should not be included.
- A4.4 Direct, incremental and avoidable all relate to the same concept:
- (1) **Direct:** Direct, or variable, costs and revenues are those that change in proportion to the amount of WEEE collected by the PCS.
  - (2) **Incremental:** Incremental, or marginal, costs and revenues are those additional costs and revenues that arise as further WEEE is collected.
  - (3) **Avoidable:** Avoidable, or separable, costs and revenues are those that could be eliminated if the WEEE was not collected.
- A4.5 Overhead costs, like management, HR, administration, IT, marketing and rent, do not meet the definitions above and should not be included.
- A4.6 Submitting only selected transactions is not acceptable. All transactions meeting these criteria must be included.
- A4.7 Cross-subsidisation of costs and revenues between streams is not acceptable. All costs and revenues relating to each stream should be included in that stream.
- A4.8 Examples of costs and revenues that meet these definitions are given in the further instructions below.
- A4.9 If you have any further questions or need to modify the template in any way, please consult the Administrator.

**WEEE collection target**

- A4.10 Please enter the exact household WEEE tonnage target for each stream. This should be the target as advised by the relevant environment agency.

**Total WEEE evidence received**

- A4.11 Please enter the exact household WEEE tonnage that the PCS has received evidence for, as recorded on the settlement centre. This may be different from the amount of WEEE directly collected, as it may include WEEE indirectly collected through other routes (e.g. directly purchased from AATFs or third parties such as PCSs or waste management companies contracting with AATFs). This will be used to calculate the shortfall against the target.

***Amount of WEEE directly collected***

- A4.12 Please enter the number of tonnes of household WEEE in each stream directly collected in the period specified. Direct collections may be from DCFs, or under Regulations 43 or 52.
- A4.13 Tonnages should be entered to three decimal places (i.e. do not round to the nearest tonne).

***Direct costs of collection and treatment***

- A4.14 Please enter, in GBP, the direct, incremental and avoidable costs associated with collections undertaken for each stream in the period specified. Direct costs may include:
- (1) transport costs;
  - (2) container costs (e.g. rental, depreciation or empty container delivery costs);
  - (3) other collection costs;
  - (4) treatment costs;
  - (5) environmental levies (e.g. waste transfer or consignment notes); and
  - (6) any other categories that meet the definitions of direct, incremental and avoidable above.
- A4.15 Please provide as much information as possible here. If you are not able to separate transport and treatment costs from other direct costs due to your cost structure, please provide the total.
- A4.16 Please advise the Administrator if data submitted includes any related party transactions (e.g. if WEEE is treated at an AATF owned by the same parent company as the PCS). The Administrator will consider the related party nature of such transactions.
- A4.17 If you are not able to separate costs and income for a WEEE stream, please leave this section blank.

***Income***

- A4.18 Please enter, in GBP, any revenues associated with directly collected WEEE. Revenues may relate to:
- (1) reuse of EEE;
  - (2) sale of material parts; and
  - (3) any other income that meets the definitions of direct, incremental and avoidable above.
- A4.19 Please include all income, including any income redistributed to local authorities or others.
- A4.20 If income for a stream is zero, please enter 0.

- A4.21 If you are not able to separate costs and income for a WEEE stream, please leave this section blank.

**Net cost**

- A4.22 If you were able to complete both the cost and income sections, this section will calculate the net cost automatically. No further data is required.
- A4.23 If you were not able to complete both the cost and income sections, please enter here the overall net cost associated with each stream of WEEE. Ensure that all costs and revenues that comprise net cost meet the definitions of direct, avoidable and incremental above.”

## **Appendix 5**

### **Independent review of PCS data submissions**

- A5.1 PCSs will arrange for an independent review of the submitted data. A registered auditor will be engaged by each PCS to provide limited assurance on whether the net cost data provided is true and fair in accordance with a set of agreed upon procedures. The auditor should undertake this engagement in accordance with all relevant International Standards on Auditing (ISAs)
- A5.2 The auditor should provide a short independent review report for submission to the Administrator.. This report should provide an opinion on the net cost data submitted. An unqualified opinion should be worded as follows:

*“Based on our work, nothing has come to our attention to refute the directors’ confirmation that the net cost data submitted gives a true and fair view of the PCSs’ activities for the compliance period ended 31 December 2014 and has been properly prepared in accordance with Generally Accepted Accounting Practice in the UK/the Financial Reporting Standard for Smaller Entities/ International Accounting Standards ”*

## **Appendix 6**

### **Restrictions and limitations**

#### **Restrictions**

- A6.1 This report has been prepared solely for the benefit of the JTA for use for the purpose described in the introduction. FTI Consulting accepts no liability or duty of care to any person other than the JTA for the content of the report and disclaims all responsibility for the consequences of any person other than the JTA acting or refraining to act in reliance on the report or for any decisions made or not made which are based upon the report.

#### **Limitations to the scope of our work**

- A6.2 This report contains information obtained or derived from a variety of sources. Where appropriate FTI Consulting has been given assurances regarding the reliability of those sources and information provided. However, we have not sought to independently verify the information we have reviewed.
- A6.3 No representation or warranty of any kind (whether express or implied) is given by FTI Consulting to any person (except to the JTA under the relevant terms of our engagement) as to the accuracy or completeness of this report.
- A6.4 This report is based on information available to FTI Consulting at the time of writing of this report and does not take into account any new information which becomes known to us after the date of this report. We accept no responsibility for updating this report or informing any recipient of this report of any such new information.



