

Schedule 2B: ED1 Price Control Financial Handbook

ED1 Price Control Financial Handbook

First publication: 21 May 2014
Effective date: 1 April 2015
Version 1.0 21 May 2014

Contact: Ofgem Regulatory Finance Team
Tel: 020 7901 7000
Email: regulatoryfinance@ofgem.gov.uk

Overview:

This is the ED1 Price Control Financial Handbook which forms part of Charge Restriction Condition 4A (Governance of ED1 Price Control Financial Instruments) of the electricity distribution licence held by each electricity distribution network operator that is a Distribution Services Provider.

This document consists of:

- a) a description of the ED1 Price Control Financial Model (PCFM) and the Annual Iteration Process for it, used to update the licensee's Opening Base Revenue Allowances during the course of the RIIO-ED1 Price Control Period;
- b) an overview of the ED1 Price Control Financial Methodologies under which revisions to the variable values in the PCFM are determined for the Annual Iteration Process, in accordance with the Charge Restriction Conditions of the Licence; and
- c) a series of chapters containing the detailed methodologies relating to the revision of PCFM Variable Values.

The procedures relating to modification of this Handbook and the PCFM are contained in Charge Restriction Condition 4A.

An up to date version of this handbook and the PCFM (in Microsoft Excel® format) can be accessed on the Ofgem Website.

Context

The RIIO-ED1 price control arrangements are the first, in respect of electricity distribution, to apply Ofgem's RIIO framework (Revenue = Incentives + Innovation + Outputs). The aim of the RIIO approach is to incentivise network owners and managers to achieve the outputs needed to deliver sustainable energy networks at value for money for existing and future consumers.

The RIIO-ED1 price control period is longer than the previous electricity distribution price control (the DPCR5 Price Control), running for eight years instead of five. This provides for a longer period of price control arrangements with the aim of facilitating improved strategic planning and a long-term approach to electricity distribution infrastructure management.

Under the 'DPCR' price controls, base revenue allowances, were set up-front for the whole of the price control period, changing only with RPI indexation requiring certain adjustments to reflect activity levels and varying financial conditions to be left until the subsequent five-yearly review. Under RIIO-ED1, these adjustments to base revenue, along with RPI indexation, will be made each year in respect of the licensee's network business.

This new approach involves an annual iteration of the ED1 Price Control Financial Model using updated variable values. This gives rise to a requirement for licence conditions and methodologies to govern the determination of revised PCFM Variable Values and the Annual Iteration Process.

This document, The ED1 Price Control Financial Handbook, which forms part of Charge Restriction Condition 4A (Governance of ED1 Price Control Financial Instruments), sets out the methodologies for the revision of PCFM Variable Values. Up-to-date copies of both the handbook and the ED1 Price Control Financial Model will be maintained on the Ofgem Website.

Associated documents

a. [Strategy decision for the RIIO-ED1 electricity distribution price control](#)

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=120&refer=Networks/ElecDist/PriceCtrls/riio-ed1/consultations>

b. [Strategy decision for RIIO-ED1 - Financial issues](#)

<https://www.ofgem.gov.uk/ofgem-publications/47071/riioed1decfinancialissues.pdf>

c. [ED1 PCFM](#)

www.ofgem.gov.uk – search term "ED1 PCFM"

Contents

Introduction	5
Terms used in this handbook	6
1. The ED1 Price Control Financial Model and the Annual Iteration Process.....	8
Section 1 - Overview	8
Price base.....	8
Temporal convention.....	9
Section 2 - The PCFM and the Annual Iteration Process.....	10
Section 3 - The ED1 Price Control Financial Model Working Group	15
Terms of reference	15
2. The ED1 Price Control Financial Methodologies	17
Methodologies in this handbook.....	17
Processing of different types of PCFM Variable Value under the Annual Iteration Process	23
3. Pension Scheme Established Deficit repair allowances - financial adjustment methodologies.....	27
Section 1 - Overview	27
Price control pension principles.....	27
Pension Scheme Established Deficit	28
Section 2 - Updating Pension Scheme Established Deficit repair allowances through the Annual Iteration Process.....	30
Reasonableness Reviews	32
Scheme Valuation Data Set.....	33
Section 3 – Pension Scheme Established Deficit repair allowances.....	34
Determination and direction of revised EDE values by 30 November 2017 .	34
Determination and direction of revised EDE values by 30 November 2020 .	40
Direction of revised EDE values	46
Section 4 - Processing of revised EDE values under the Annual Iteration Process	47
4. Tax liability allowances - financial adjustment methodologies	48
Section 1 - Overview	48
Annual Iteration Process.....	48
Price bases for tax calculations.....	50
Regulatory tax losses	50
Group tax arrangements.....	50
Section 2 - Adjustments driven by tax trigger events - methodology	51
Tax trigger events	51
Materiality threshold and 'deadband'	52
Notification of tax trigger events.....	53
Logging of trigger events.....	55
Determination and direction of revised TTE values	56
Section 3 - Adjustments driven by gearing levels and corporate debt interest costs ('tax clawback') - methodology.....	58
Determination and direction of revised TGIE values	58
Direction of TGIE values	61
Section 4 - Processing of revised PCFM Variable Values under the Annual Iteration Process.....	61

5. Corporate debt allowed percentage cost - financial adjustment methodology	63
Section 1 - Overview	63
Section 2 - Methodology for determining revised PCFM Variable Values for the cost of corporate debt	63
Non-availability of iBoxx or Bank of England data	66
Section 3 - Use of revised PCFM Variable Values in the Annual Iteration Process	66
6. Totex Incentive Mechanism – financial adjustment methodology	68
Section 1 - Totex Incentive Mechanism	68
Description of the Totex Incentive Mechanism (TIM)	69
Application of the TIM under the Annual Iteration Process	71
Total expenditure (Totex)	72
Section 2 - Determination of PCFM Variable Value revisions for actual Totex expenditure	73
Section 3 - Notification and direction of revised PCFM Variable Values	74
7. Uncertain costs allowed expenditure – financial adjustment methodology	75
Section 1 - Overview	75
Section 2 – Methodology for determining relevant adjustments in respect of High Value Project Costs	78
Section 3 – Methodology for determining relevant adjustments in respect of Enhanced Physical Site Security Costs	81
Section 4 – Methodology for determining relevant adjustments in respect of Specified Street Works Costs	84
Section 5 – Determination, notification and direction of revised PCFM Variable Values for uncertain cost activities	87
8. Smart Meter Roll-out Costs- financial adjustment methodology	89
Section 1 - Overview	89
Section 2 - Determination of revised SMAE values for Regulatory Years 2015/16 to 2021/22	90
Section 3 - Determination of revised SMAE value for Regulatory Year 2022/23	91
Section 4 - Notification and direction of revised PCFM Variable Values	93
9. Load Related Expenditure - financial adjustment methodology	94
Section 1 – Overview	94
Section 2 – Determination of revisions to allowed levels of Load Related Expenditure	95
Section 3 - Notification and direction of revised PCFM Variable Values for Load Related Expenditure (LRRC values)	98
10. Visual Amenity Projects - financial adjustment methodology	100
Section 1 – Overview	100
Section 2 - Determination, notification and direction of revised PCFM Variable Values for Visual Amenity Projects (VAA values)	101
11. Worst Served Customer Projects - financial adjustment methodology	104
Section 1 – Overview	104

Section 2 - Determination, notification and direction of revised PCFM Variable Values for projects to improve services to Worst Served Customers (WSSC values)105

12. Innovation Roll-out Mechanism allowed expenditure – financial adjustment methodology 108

 Section 1 - Overview108

Materiality threshold.....109

 Part 2 - Methodology for determining Relevant Adjustments in respect of Innovation Roll-out109

 Section 3 – Determination, notification and direction of revised IRM values ..111

12A. WPD Rail electrification allowed expenditure –financial adjustment 113

 Section 1 - Overview113

 Section 2 – Determination, notification and direction of revised PCFM Variable Values for rail electrification (RE values)114

Appendix 1 - Glossary..... 117

Introduction

The ED1 Price Control Financial Handbook ('this handbook') is one of the Price Control Financial Instruments referred to in Charge Restriction Condition 4A (Governance of ED1 Price Control Financial Instruments) of the electricity distribution licence held by electricity distribution network operators. The Price Control Financial Instruments were included in the licence as a result of the same licence modification that included Charge Restriction Condition 4A in the licence.

This handbook describes the ED1 Price Control Financial Model (PCFM) and the Annual Iteration Process for it, by which annual adjustments to the licensee's base revenues will be calculated. It also contains the ED1 Price Control Financial Methodologies ('the methodologies'), specified in relevant Charge Restriction Conditions, which will be used to determine appropriate revisions to the variable values contained in the PCFM to facilitate calculations under the Annual Iteration Process.

This handbook, the constituent methodologies and the PCFM (together the Price Control Financial Instruments) form part of Charge Restriction Condition 4A. The Financial Instruments are subject to a formal change control process set out in that condition.

The Annual Iteration Process for the PCFM:

- incorporates 'real time' adjustments to financial allowances;
- uses a financial model for the purpose of computing interactions between financial adjustments rather than setting out the relevant algebra on the face of Charge Restriction Conditions;
- provides for consistent treatment of the Totex aspects of the price control;
- provides transparency on adjustments to base revenues, since the licence, methodologies, PCFM and variable values will be published; and
- allows stakeholders to have visibility of base revenue¹ levels to facilitate business sensitivity analysis.

In any case of conflict of meaning, the following order of precedence applies:

- (i) the text of the relevant licence condition(s),
- (ii) this handbook and its constituent methodologies, and
- (iii) the PCFM.

¹ The PCFM only calculates base revenue and the annual adjustment to Opening Base Revenue Allowances (the MOD term). It does not calculate the total allowed revenues of the licensee which include additional components specified in CRC 2A (Restriction of Allowed Distribution Network Revenue).

Terms used in this handbook

References to the Authority and Ofgem

The Gas and Electricity Markets Authority (“the Authority”) is established by section 1 of and Schedule 1 to the Utilities Act 2000. The Office of Gas and Electricity Markets (“Ofgem”) is the office that supports the Authority.

Other terminology

Throughout this handbook:

- (a) ‘licence’ means the relevant electricity distribution licence granted under section 6(1)(c) of the Electricity Act 1989 of which this handbook forms part;
- (b) ‘licensee’ has the meaning given to that term in the licence of which this handbook forms part;
- (c) ‘Charge Restriction Condition’ (abbreviated to ‘CRC’) means any one of the Charge Restriction Conditions contained in the licence as defined at (a) above;
- (d) ‘this handbook’ means the ED1 Price Control Financial Handbook, which forms part of CRC 4A;
- (e) PCFM means the ED1 Price Control Financial Model which forms part of CRC 4A; and
- (f) ‘Price Control Period’ means the RIIO-ED1 price control period which runs from 1 April 2015 to 31 March 2023.

Other terms used in the text of this handbook that are capitalised are defined in the Glossary, where applicable by reference to the licence or a decision document published by the Authority. Where the meanings of other terms used in this handbook is not clear from the context, they will be explained in the chapter concerned or in the Glossary.



Part 1

1. The ED1 Price Control Financial Model and the Annual Iteration Process

Section 1 - Overview

1.1 CRC 2A (Restriction of Allowed Distribution Network Revenue) specifies the Opening Base Revenue Allowance for the licensee for each Regulatory Year of the Price Control Period, reflecting the Authority's Final Determination for the RIIO-ED1 price control settlement.

1.2 The licensee's Opening Base Revenue Allowances are set down against its name in Appendix 1 of CRC 2A and are included in the formula for Base Demand Revenue set out in that condition. Base Demand Revenue is the largest component of the licensee's overall allowed revenue but the other components, specified in the licence, must also be taken into account when assessing total revenue allowances.

1.3 The ED1 Price Control Financial Model (PCFM) calculates incremental changes to the licensee's Opening Base Revenue Allowance for each Regulatory Year so that the licensee's Base Demand Revenue reflects the adjustment schemes specified in the licence and referred to in the methodologies in this handbook. The adjustments fall into three broad categories:

- financial adjustments covering tax, pension and cost of debt issues;
- adjustments relating to actual and allowed total expenditure (Totex) and the Totex Incentive Mechanism (see chapter 6); and
- legacy price control adjustments – the close-out of schemes and mechanisms from preceding price control periods.

1.4 The calculations take place under the Annual Iteration Process for the PCFM which is specified in Part A of CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model) and described below. The calculations result in a PCFM output value for the term MOD which is then applied as shown in the simplified² formula below:

Base Revenue for year t = Opening Base Revenue Allowance for year t + MOD for year t.

Price base

1.5 The PCFM works in a constant 2012/13 price base, except in respect of some internal tax calculations (see paragraph 1.6). This is consistent with the Opening

² The full formula is shown in paragraph 2A.5 of CRC 2A (Restriction of Allowed Distribution Network Revenue).



Base Revenue Allowance values set down in the licence. The value of the term MOD is calculated in 2012/13 prices. Indexation is provided for in the formula set out in paragraph 2A.5 of CRC 2A.

1.6 Some tax calculations internal to the PCFM use nominal prices, based on embedded RPI forecast data. The use of nominal prices in the PCFM tax calculations is aimed at enabling revenue allowance calculations more accurately to reflect the profile of tax expenses of the licensee.

1.7 Where a methodology in this handbook calls for values to be deflated from a nominal price base, used in price control review information reporting, to the 2012-13 price base used in the PCFM, the following formula will be used:

$$\text{Value}_{2012-13} = \text{value}_{\text{nominal price year}} \times \frac{\text{RPI}_{2012-13}}{\text{RPI}_{\text{nominal price year}}}$$

where:

- $\text{value}_{2012-13}$ means the deflated value in the 2012/13 price base;
- $\text{value}_{\text{nominal price year}}$ means the value in nominal prices, used in price control review information reporting;
- $\text{RPI}_{2012-13}$ means the arithmetic average of the Retail Prices Index (all items) figures published by the Office for National Statistics for each calendar month in Regulatory Year 2012/13 rounded to three decimal places; and
- $\text{RPI}_{\text{nominal price year}}$ means the arithmetic average of the Retail Prices Index (all items) figures published by the Office for National Statistics for each calendar month in the Regulatory Year referred to in the price control review information in question rounded to three decimal places.

Temporal convention

1.8 The following conventions apply throughout this handbook.

Relative references

1.9 The MOD term is used to modify the licensee’s Opening Base Revenue Allowance for each Regulatory Year t during the Price Control Period³. References in this handbook to Regulatory Years are made relative to that usage. For example, in a context where MOD_t applied in the formula for Base Demand Revenue in 2017/18,

³ In 2015-16, the first year of the Price Control Period, the licence specifies that the value of MOD is zero.

a reference in the same context to Regulatory Year t-1 would mean 2016/17 and so on.

Absolute references

1.10 A reference to, for example, 'the EDE value for 2017/18' means the EDE value in the 2017/18 column of the PCFM Variable Values Table for the licensee contained in the PCFM⁴.

Section 2 - The PCFM and the Annual Iteration Process

1.11 The PCFM exists as a constituent part of CRC 4A (Governance of ED1 Price Control Financial Instruments). It has an input area for the licensee containing both fixed values and a PCFM Variable Values Table. The base revenue figure for the licensee for each Regulatory Year of the Price Control Period is calculated using the fixed values, the PCFM Variable Values, and the formulae and functions embedded in the PCFM.

1.12 At the outset of the Price Control Period, the base revenue figures calculated by the PCFM, using the variable values subsisting at that time, are equal to the Opening Base Revenue Allowances for the licensee. .

1.13 Subject to paragraph 1.14, by 30 November in each Regulatory Year t-1, or as soon as is reasonably practicable thereafter, Ofgem will determine whether any PCFM Variable Values for the licensee should be revised in accordance with the Charge Restriction Conditions and the ED1 Price Control Financial Methodologies set out in chapters 3 to 16 of this handbook.

1.14 The last Regulatory Year in which there will be an Annual Iteration Process for the PCFM is Regulatory Year 2021/22 for the purpose of determining the value of the term MOD for Regulatory Year 2022/23. Some financial adjustments provided for under the RIIO-ED1 Final Proposals will remain outstanding at the end of the Price Control Period, because relevant data will not be available in time for inclusion in the last Annual Iteration Process. For example, adjustments under the Totex Incentive Mechanism (see chapter 6) relating to actual and allowed expenditure levels in Regulatory Years 2021/22 and 2022/23 will remain outstanding. For the avoidance of doubt, adjustments of this type will be addressed under the RIIO-ED2 price control arrangements.

1.15 In order to facilitate the determination of revised PCFM Variable Values by 30 November, Ofgem will normally expect to apply the following annual cut-off dates:

- (a) 30 September in respect of functional changes to the PCFM; and

⁴ EDE values are the PCFM Variable Values for Pension Scheme Established Deficit Expenditure allowances (see Table 2.1 in chapter 2).

- (b) 31 October in respect of information submitted by the licensee and used under the ED1 Price Control Financial Methodologies.

1.16 In applying the cut-off referred to in paragraph 1.15(b), Ofgem will, through business correspondence, apprise the licensee of any provisionality it has attached to information submissions, that might entail a restatement of the information by the licensee for the purpose of making a further revision to the PCFM Variable Value(s) concerned for use in a subsequent Annual Iteration Process.

1.17 The Authority will give the licensee at least 14 days' notice of any revised PCFM Variable Values in accordance with requirements in the licence, to allow for any representations. The Authority will then (by 30 November in Regulatory Year t-1, or as soon as is reasonably practicable thereafter) specify any PCFM Variable Value revisions in a formal direction to the licensee. The direction will also include a copy of the PCFM Variable Values table for the licensee, showing the state of all PCFM Variable Values after the directed revisions, with revised values highlighted in bold typeface.

1.18 Having determined revisions to PCFM Variable Values for the licensee, Ofgem will carry out the Annual Iteration Process:

- revised PCFM Variable Values will be entered in the appropriate Regulatory Year columns of the PCFM Variable Values Table for the licensee;
 - the PCFM calculation functions will be rerun;
 - all calculated values within the PCFM will be updated, including:
 - the recalculated base revenue figure for the licensee for each Regulatory Year of the Price Control Period, and
 - the modelled RAV balance for the licensee;
- and
- the PCFM will output the value of MOD for Regulatory Year t for the licensee.

1.19 In the context of the Annual Iteration process for the PCFM, the expression 'recalculated base revenue figure' in respect of a particular Regulatory Year means a value calculated in the same way that the licensee's Opening Base Revenue Allowance for that Regulatory Year was calculated, but using revised PCFM Variable Values (see also paragraph 1.12).

1.20 The output value of MOD_t for the licensee will reflect:

- (a) the difference between the recalculated base revenue figure for the licensee for Regulatory Year t (in the PCFM) and the Opening Base Revenue Allowance set down in the licence; and
- (b) the difference between the recalculated base revenue figures held in the PCFM for Regulatory Years t-1 and earlier, before the Annual Iteration Process, and the recalculated base revenue figures for the

licensee held in the PCFM for the same years after the Annual Iteration Process.

1.21 The PCFM calculations will apply Time Value of Money Adjustments to the calculation of MOD_t , to take account of the passage of time between adjustments to Base Demand Revenue in years prior to Regulatory Year t and the Regulatory Year for which MOD_t is being calculated.

1.22 PCFM Variable Values for Regulatory Years later than Regulatory Year t do not feed into the calculation of the term MOD_t . Therefore, calculated values in the PCFM for Regulatory Years later than Regulatory Year t represent only a forecast. This is without prejudice to the status of the PCFM Variable Values concerned, which may have been determined or directed under licence conditions and which may or may not be subject to subsequent revision.

1.23 Changes to base revenue figures calculated under the Annual Iteration Process may be upwards or downwards and, accordingly, the value of MOD_t may be positive or negative. Once the value of MOD has been directed for a particular Regulatory Year, it is not changed retroactively as a result of a subsequent Annual Iteration Process – the value becomes a matter of record alongside the Opening Base Revenue Allowance value for the same year. The steps of the Annual Iteration Process are specified in Part A of CRC 4B.

1.24 The Authority will issue a direction to the licensee giving the value of MOD_t by 30 November in each Regulatory Year $t-1$ ⁵ or as soon as reasonably practicable thereafter. In practice, it is expected that the value of MOD_t will be included in the direction of revised PCFM Variable Values referred to in paragraph 1.17. The value of MOD_t in the direction will be stated in £m to one decimal place.

1.25 The deadline of 30 November in Regulatory Year $t-1$ for the direction of PCFM Variable Value revisions and for the value of MOD_t reflects

- the dates in Regulatory Year $t-1$ by which the licensee is required to submit its price control information returns (covering activity in Regulatory Year $t-2$) to Ofgem, and
- the need for the licensee to have confirmation of its Base Demand Revenue in time to calculate and issue its use of system charges.

1.26 Subject to the specification in paragraph 3 of CRC 4B that the last Regulatory Year in which there will be an Annual Iteration Process for the PCFM is Regulatory Year 2021/22, if the Authority does not direct a value for MOD_t by 30 November in Regulatory Year $t-1$, paragraphs 4B.12 to 4B.14 of CRC 4B specify that:

- the Annual Iteration Process will not have been completed;

⁵ The first such direction will be given by 30 November 2015.

- the Authority will complete the Annual Iteration Process as soon as reasonably practicable after 30 November in the relevant Regulatory Year t-1 by directing a value for MOD_t for the licensee; and
- in the intervening period, the value of MOD_t will be held to be equal to the value ascertained by:
 - taking a copy of the PCFM in its state following the last completed Annual Iteration Process (excluding the effect of any functional modifications under CRC 4A made after the completion of that Annual Iteration Process);
 - using the selection facilities on the user interface sheet contained in that copy to select:
 - the name of the licensee; and
 - the Regulatory Year equating to Regulatory Year t; and
 - recording the value of the term MOD_t for the licensee that is shown as an output value.

1.27 Table 1.1 below summarises the timings for the Annual Iteration Process during the Price Control Period.

Table 1.1 - Summary of timings for the Annual Iteration Process

Annual Iteration Process (AIP)					
AIP month	PCFM functional change cut-off	Regulatory reporting information cut-off	Notice of proposed PCFM Variable Value revisions by	AIP completed and MOD_t directed by	Regulatory Year t in which MOD_t applies
Nov-2015	30 Sep 15	31 Oct 15	15 Nov 15	30 Nov 15	2016/17
Nov-2016	30 Sep 16	31 Oct 16	15 Nov 16	30 Nov 16	2017/18
Nov-2017	30 Sep 17	31 Oct 17	15 Nov 17	30 Nov 17	2018/19
Nov-2018	30 Sep 18	31 Oct 18	15 Nov 18	30 Nov 18	2019/20
Nov-2019	30 Sep 19	31 Oct 19	15 Nov 19	30 Nov 19	2020/21
Nov-2020	30 Sep 20	31 Oct 20	15 Nov 20	30 Nov 20	2021/22
Nov-2021	30 Sep 21	31 Oct 21	15 Nov 21	30 Nov 21	2022/23

State of the ED1 Price Control Financial Model

1.28 As stated in paragraph 1.11, the PCFM exists as a constituent part of CRC 4A and will be maintained by Ofgem in its official records. The state of the PCFM remains constant unless and until changed by either:

- (a) an Annual Iteration Process - which will change PCFM Variable Values and recalculated values that are directly or indirectly dependent upon them; or
- (b) a modification of the PCFM under the procedures set out in CRC 4A.

1.29 Ofgem will keep a log of modifications to the PCFM and publish this log on the Ofgem Website.

1.30 A copy of the PCFM in its latest state will be maintained on the Ofgem Website. This will allow the licensee and other stakeholders to make copies of the PCFM so that they can:

- use their own forecasts of PCFM Variable Value revisions to forecast base revenue positions and to conduct sensitivity analysis; and
- reproduce the calculation of MOD_t by 30 November in each Regulatory Year $t-1$.

1.31 Ofgem will upload an updated copy of the PCFM to the Ofgem Website by 30 November each year (after each Annual Iteration Process) with the electronic file name "ED1 PCFM November 20XX" in Regulatory Year 20XX/XX (where 20XX/XX is the format used for expressing Regulatory Year $t-1$).

Error of functionality in the PCFM

1.32 In the event that an error of functionality is discovered in the PCFM, the following procedure will be followed:

- the issue will be considered at the earliest opportunity by the ED1 PCFM Working Group (see next section) and a corrective modification proposed by Ofgem;
- if the functional error has distorted the calculation of a previously directed value of the term MOD, the determined modification would include any Time Value of Money adjustments necessary to correct for that distortion in the next calculation of the term MOD_t ; and
- the procedure in CRC 4A for modifications to the PCFM would be followed.

Section 3 - The ED1 Price Control Financial Model Working Group

1.33 Ofgem will facilitate an industry expert working group to review issues arising with respect to the form or usage of the PCFM. The terms of reference for the ED1 PCFM Working Group ('the working group') are set out below.

1.34 In accordance with the provisions of Part A of CRC 4A, the Authority will have regard to any views expressed by the working group when assessing whether any proposed modification of the PCFM would be likely to have a significant impact on the licensee or other stakeholders.

Terms of reference

Purposes of the working group

1.35 The purposes of the working group are:

- (i) to review the ongoing effectiveness of the PCFM in producing a value for the term MOD for each Regulatory Year;
- (ii) to provide, when requested by the Authority, its views to the Authority on the impact of any proposal (or prospective proposal) to modify the PCFM in accordance with Part A of CRC 4A; and
- (iii) to provide such views or recommendations to the Authority with regard to the PCFM (including as to proposals to modify the PCFM) as it sees fit.

Composition

1.36 The composition of the group will be:

- Ofgem (chair);
- Ofgem (secretary);
- one representative per licensee; and
- Energy Networks Association representative (optional).

Timing and duration of the group's work

1.37 The working group's incumbency will run from 1 April 2015 to 31 March 2023.

1.38 The group will meet at least once between 1 January and 31 July during each calendar year, but additional meetings may be convened by Ofgem:

- if it considers that such a meeting or meetings would be useful to achieve the purposes of the group; or

- if such a meeting is requested by at least two licensees (each from a different ownership group) for the purpose of putting forward a recommendation that a modification should be made to the PCFM.

1.39 In convening any meeting of the working group, Ofgem will give at least 10 working days' notice of the proposed meeting date to the licensee.

1.40 Representatives may attend meetings in person or, at the discretion of the chair, through video or telephone conferencing facilities.

1.41 A meeting of the working group will be quorate, for the purpose of expressing a view or recommendation in respect of the PCFM, when at least one representative from Ofgem, and at least four licensee representatives (each from a different ownership group) are present.

Resources

1.42 Meeting facilities will be provided or coordinated by Ofgem. Ofgem will keep a record of the discussion and views expressed at meetings, and of any recommendations made by the working group with respect to the PCFM. A copy of the record of each meeting will be provided to the licensee and to representatives who attended the meeting, and Ofgem will take account of any comments received in finalising the record.

2. The ED1 Price Control Financial Methodologies

2.1 The ED1 Price Control Financial Methodologies set out in this handbook ('the methodologies') describe the basis for a range of annual adjustments to the licensee's Opening Base Revenue Allowances under the RIIIO-ED1 price control arrangements. The methodologies are presented in chapters 3 to 16 of this handbook, and are referenced in the associated Charge Restriction Conditions of the licence. As constituent parts of this handbook, the methodologies are part of CRC 4A (Governance of ED1 Price Control Financial Instruments) and are subject to the modification provisions set out in that condition.

2.2 Each methodology sets out the way in which one or more PCFM Variable Values are to be revised as part of the Annual Iteration Process for the ED1 Price Control Financial Model (PCFM) under which values of the term MOD_t are calculated (see chapter 1). The methodologies do not include details of the calculations carried out by the PCFM which are complex and interdependent. Stakeholders wishing to understand in detail the way in which PCFM Variable Values are processed and values for MOD calculated under the Annual Iteration Process should refer to the PCFM. The PCFM forms part of CRC 4A and is subject to the modification provisions set out in that condition.

2.3 Revised PCFM Variable Values determined under the methodologies will replace (overwrite) the existing values contained in the PCFM Variable Values Table for the licensee in the PCFM as part of the Annual Iteration Process. The PCFM Variable Values Table is on the 'Input' worksheet of the PCFM and has been shaded blue; this area is informally known as 'the blue box'. Alongside each row of the blue box is a description of the item and the PCFM Variable Value name detailed in table 2.1 below.

2.4 Each methodology is intended to be consistent with the provisions of any CRC to which it refers or relates. However, in the event of any inconsistency between a methodology and a provision set out on the face of a CRC, the provision in the CRC takes precedence.

Methodologies in this handbook

2.5 The PCFM Variable Values that can be revised under the terms of CRCs and the methodologies in this handbook are set out in Table 2.1 below.

Table 2.1 - PCFM Variable Values that can be revised under CRCs and the methodologies in this handbook

PCFM Variable Value	Charge Restriction Condition	Description	Type of variable value	Values at 1 April 2015	Revised values (where directed)
<u>Specified financial adjustments</u>					
EDE (chapter 3)	CRC 3C	Pension Scheme Established Deficit	revenue adjustment	Allowances for Pension Scheme Established Deficit repair used in the calculation of Opening Base Revenue Allowances.	Revised allowances for Pension Scheme Established Deficit repair.
TTE (chapter 4)		Tax liability – tax trigger events	revenue adjustment	Zero.	Incremental change to tax liability allowances.
TGIE (chapter 4)		Tax liability – gearing/interest costs	revenue adjustment	Zero.	Incremental change to tax liability allowances ⁶ .
CDE (chapter 5)		Allowed percentage cost of debt	percentage	Opening allowed percentage cost of corporate debt.	Revised allowed percentage cost of corporate debt.
Totex Incentive Mechanism					
ALC (chapter 6)	CRC 3B	Actual load-related capex expenditure	actual expenditure	Equal to allowed expenditure level for load-related capex.	Actual load-related capex expenditure reported by licensee.
ANLR (chapter 6)		Actual non-load-related capex expenditure - asset replacement	actual expenditure	Equal to allowed expenditure level for non-load-related capex –	Actual non-load-related capex – asset replacement expenditure

⁶ Subject to iterative modelling effect - see paragraph 4.6 in chapter 4.

PCFM Variable Value	Charge Restriction Condition	Description	Type of variable value	Values at 1 April 2015	Revised values (where directed)
				asset replacement.	reported by licensee.
ANLO (chapter 6)		Actual non-load-related capex - other	actual expenditure	Equal to allowed expenditure level for non-load-related capex - other.	Actual non-load-related capex - other expenditure reported by licensee.
AFE (chapter 6)		Actual faults expenditure	actual expenditure	Equal to allowed expenditure level for faults.	Actual faults expenditure reported by licensee.
ARP (chapter 6)		Actual 100% 'revenue pool' expenditure	actual expenditure	Equal to allowed 100% 'revenue pool' expenditure level.	Actual 100% 'revenue pool' expenditure reported by licensee.
ACO (chapter 6)		Actual controllable opex expenditure	actual expenditure	Equal to allowed expenditure level for controllable opex.	Actual control opex expenditure reported by licensee.
TRE (chapter 6)		Actual tree cutting expenditure	actual expenditure	Equal to allowed expenditure level for tree cutting.	Actual tree cutting expenditure reported by licensee.
Allowed Totex expenditure adjustments					
UCEPS (chapter 7)	CRC 3F	Uncertain costs – enhanced physical site security	allowed expenditure	Allowed expenditure level on enhanced physical site security used in the calculation of Opening Base Revenue Allowances.	Revised (total) allowed expenditure level on enhanced physical site security.

PCFM Variable Value	Charge Restriction Condition	Description	Type of variable value	Values at 1 April 2015	Revised values (where directed)
UCSSW (chapter 7)		Uncertain costs – specified street works	allowed expenditure	Zero.	Total additional allowed expenditure level on specified street works.
UCHVP (chapter 7)		Uncertain costs – high value projects	allowed expenditure	Allowed expenditure level on high value projects used in the calculation of Opening Base Revenue Allowances.	Revised (total) allowed expenditure level on high value projects.
SMAE (chapter 8)	CRC 3E	Smart Meter Roll-out costs	allowed expenditure	Baseline level of allowed expenditure on Smart Meter Roll-out costs used in the calculation of Opening Base Revenue Allowances.	Revised (total) allowed expenditure level on Smart Meter Roll-out costs.
LRRC (chapter 9)	CRC 3G	Load Related Expenditure	allowed expenditure	Allowed expenditure level on Load Related Expenditure used in the calculation of Opening Base Revenue Allowances.	Revised (total) allowed level of Load Related Expenditure.
VAA (chapter 10)	CRC 3J	Visual Amenity costs	allowed expenditure	Zero.	Revised (total) allowed expenditure level on Visual Amenity Projects.

PCFM Variable Value	Charge Restriction Condition	Description	Type of variable value	Values at 1 April 2015	Revised values (where directed)
WSSC (chapter 11)	CRC 3H	Worst Served Customer costs	allowed expenditure	Zero.	Revised (total) allowed expenditure level on Worst Served Customer Projects.
IRM (chapter 12)	CRC 3D	Innovation Roll-out mechanism	allowed expenditure	Zero.	Revised (total) allowed expenditure level on Innovation Roll-out.
RE (chapter 12A)	CRC3K	Rail electrification ⁷	allowed expenditure	Allowed expenditure level on rail electrification used in the calculation of Opening Base Revenue Allowances.	Revised (reduced total) allowed expenditure level on rail electrification.
Legacy price control adjustments					
LTPG LTPS LTPD LTPC (chapter 14)	CRC 3A	Legacy adjustments to opening tax pool balances	balance adjustment	Zero.	Incremental change to tax pool balances.
OLREV		Legacy adjustments to revenue allowances	revenue adjustment	Zero.	Incremental change to recalculated base revenue figures.

⁷ Applicable to WPD licensees only – see chapter 12A

PCFM Variable Value	Charge Restriction Condition	Description	Type of variable value	Values at 1 April 2015	Revised values (where directed)
OLRAV (chapter 15)		Legacy adjustments to RAV additions	RAV balance adjustment	Zero.	Incremental change to RAV balance as at 1 April 2015.
RIREV (chapter 16)		Legacy adjustments associated with the DPCR5 RAV Rolling Incentive mechanism	revenue adjustment	Zero.	Incremental change to recalculated base revenue figures.

Specified financial adjustments

2.6 Specified financial adjustments relate to adjustment mechanisms set out in the Authority's Strategy decision for RIIO-ED1 - Financial issues supplementary annex - see associated document b. Overviews of the adjustments and the methodologies for determining revisions to the associated PCFM Variable Values are contained in chapters 3 to 5 of this handbook.

Totex Incentive Mechanism

2.7 The Totex Incentive Mechanism applies to any overspend or under spend by the licensee against its RIIO-ED1 Totex expenditure allowances. An overview of the mechanism and the methodology for determining revisions to the associated PCFM Variable Values for actual expenditure levels are contained in chapter 6 of this handbook.

Allowed Totex expenditure adjustments

2.8 Allowed Totex expenditure adjustments cover a range of Totex adjustment schemes under which allowed expenditure can be adjusted under a specified formula or through an application and assessment process. The methodologies for determining revisions to the associated PCFM Variable Values are contained in chapters 7 to 12A of this handbook.

Legacy price control adjustments

2.9 Legacy price control adjustments relate to activities that took place in the price control periods prior to RIIO-ED1 ('the legacy period') but in respect of which a financial adjustment is required because:

- outturn data for Regulatory Years in the legacy period were not available when Opening Base Revenue Allowances for the licensee were set;
- adjustment determinations for items subject to true-up, logging-up or reopener mechanisms were not complete when Opening Base Revenue Allowances for the licensee were set; or
- there is an anomalous position, acknowledged by Ofgem and the licensee, that needs to be corrected.

2.10 The methodologies for determining revisions to the associated PCFM Variable Values are contained in chapters 14, 15 and 16 of this handbook.

Processing of different types of PCFM Variable Value under the Annual Iteration Process

2.11 In general terms, the different types of variable value specified in the fourth column of Table 2.1 are processed under the Annual Iteration Process for the PCFM in the following ways:

Actual expenditure and allowed expenditure

These variable values are used in Totex Incentive Mechanism calculations to determine the amounts that should, subject to the Totex Capitalisation Rate for the licensee, be processed as:

- (a) Fast Money – flowing directly to the recalculated base revenue figure for the Regulatory Year to which the amount relates; and
- (b) additions to the licensee’s RAV in the Regulatory Year to which the amount relates, generating a slow money adjustment to allowed revenues through the return on RAV and depreciation.

Revenue adjustment

These amounts flow directly to the recalculated base revenue figure for the Regulatory Year to which the adjustment circumstance relates. Revenue adjustments relating to Legacy price control adjustments are applied to Regulatory Year 2015/16, but are spread over the eight years of the Price Control Period by functionality in the PCFM.

Allowed percentage cost of debt

This type of variable value applies to the cost of corporate debt. As well as return on RAV, interest and tax calculations, corporate debt costs influence net present value calculations. Revised values for a particular Regulatory Year t will flow into calculations of the return on RAV.

RAV balance adjustment

This type of variable value relates to adjustments to qualifying expenditure during the price control period prior to RIIO-ED1. Revised values are input, as applicable, to the 2013/14 or 2014/15 columns of the PCFM. They generate an element of Fast Money applicable to regulatory Year 2015/16 and feed into slow money adjustments to base revenue recalculations through the return on RAV and depreciation.

Tax pool balance adjustment

This type of variable value relates to adjustments to the opening tax pool balances for the licensee to reflect outturn expenditure levels in the legacy period.

Consequential adjustments

2.12 During the Annual Iteration Process, automatic adjustments are also made as a consequence of revisions to PCFM Variable Values. For example, in some circumstances, as a result of automatic updates to the licensee’s net debt and RAV figures under the Annual Iteration Process, updated equity issuance allowances may

also be included in recalculated base revenue figures for the Regulatory Years concerned.

A typical revision

2.13 The ED1 Price Control Financial Methodologies describe the expected timing sequence for each PCFM Variable Value. For example, in relation to Smart Meter Roll-out costs, the expected sequence would be:

- Activity takes place in Regulatory Year t-2.
- Financial or other values relating to activity reported to Ofgem by 31 July in Regulatory Year t-1.
- Revised PCFM Variable Value (SMAE) used in Annual Iteration Process to take place by 30 November in Regulatory Year t-1 (the variable value in the column equating to Regulatory Year t-2 on the PCFM Variable Values Table is the one that is revised, since that is when the activity level took place).
- Incremental change to recalculated revenue position for Regulatory Year t-2 flows through to value of MOD_t ie it affects base revenue in Regulatory Year t.

2.14 A number of the Charge Restriction Conditions provide for PCFM Variable Values to be directed for Regulatory Years outside the expected sequence. Where this is the case, the procedures are explained in the relevant methodologies in this handbook.



Part 2

ED1 Price Control Financial Methodologies

3. Pension Scheme Established Deficit repair allowances - financial adjustment methodologies

Section 1 - Overview

3.1 The Opening Base Revenue Allowances ('PU' values) for the licensee set down in the table at Appendix 1 to CRC 2A (Restriction of Allowed Distribution Network Revenue) include allowances for Pension Scheme Established Deficit (PSED) repair expenditure for each Regulatory Year of the Price Control Period⁸.

3.2 These allowances are represented by the opening EDE values⁹ held in the PCFM Variable Values Table for the licensee contained in the ED1 Price Control Financial Model (PCFM) and are expressed in 2012/13 prices. Opening EDE values are based on modelling assumptions and parameters applicable at the outset of the Price Control Period.

3.3 The allowance levels will be updated during the Price Control Period by revising EDE values for the purpose of the Annual Iteration Process for the PCFM. This chapter sets out:

- the reasons for updating allowances;
- the methodologies for determining revised EDE values;
- the expected timing of revisions; and
- the effect on the licensee's allowed revenue of revising EDE values for the Annual Iteration Process.

3.4 In the context of Pension Scheme Established Deficit repair expenditure we refer to 'allowances' rather than 'allowed expenditure'. This is because, subject to the Reasonableness Review referred to in this chapter, EDE values are included in full in recalculated base revenue figures in the PCFM under the Annual Iteration Process (ie these values are treated as 100% Fast Money).

Price control pension principles

3.5 Ofgem's price control pension principles were set out in Appendix 7 of the Authority's Strategy decision for RIIO-ED1 - Financial issues supplementary annex (see associated document b to which reference should be made). The principles,

⁸Ongoing Pension Service Costs (including Pension scheme administration and Pension Protection Fund (PPF) levy costs) are included as an element of labour costs in RIIO-ED1.

⁹ As at 1 April 2015.

were specified in the Authority's final proposals for the DPCR5 Price Control¹⁰ and are:

Principle 1 - Efficient and Economic Employment and Pension Costs

Customers of network monopolies should expect to pay the efficient cost of providing a competitive package of pay and other benefits, including pensions, to staff of the regulated business, in line with comparative benchmarks.

Principle 2 - Attributable Regulated Fraction Only

Liabilities in respect of the provision of pension benefits that do not relate to the regulated business should not be taken into account in assessing the efficient level of costs for which allowance is made in a price control.

Principle 3 - Stewardship - Ante/Post Investment

Adjustments may be necessary to ensure that the costs for which allowance is made do not include excess costs arising from a material failure of stewardship.

Principle 4 - Actuarial Valuation/Scheme Specific Funding

Pension costs should be assessed using actuarial methods, on the basis of reasonable assumptions in line with current best practice.

Principle 5 - Under Funding/Over Funding

In principle, each price control should make allowance for the ex ante cost of providing pension benefits accruing during the period of the control, and similarly for any increase or decrease in the cost of providing benefits accrued in earlier periods resulting from changes in the ex ante assumptions on which these were estimated on a case-by-case basis.

Principle 6 - Severance - Early Retirement Deficiency Contributions

Companies will also be expected to absorb any increase (and may retain the benefit of any decrease) in the cost of providing enhanced pension benefits granted under severance arrangements which have not been fully matched by increased contributions.

Pension Scheme Established Deficit

3.6 For the purposes of CRC 3C (Specified financial adjustments) and this chapter, the term Pension Scheme Established Deficit (PSED) means the difference between the assets and corresponding liabilities within a defined benefit pension scheme (or schemes), sponsored by the licensee, that are:

- attributable to the licensee's distribution business; and
- attributable to pensionable service up to and including 31 March 2010 (the cut-off date).

¹⁰ [Electricity Distribution Price Control Review Final Proposals – Financial Methodologies](#)

3.7 Ofgem will determine the licensee's PSED using:

- (i) the triennial actuarial valuation of the pension scheme or schemes that contain the PSED described in paragraph 3.6;
- (ii) the allocation of assets and liabilities in the scheme(s) referred to in subparagraph (i) to the PSED using the Pension Deficit Allocation Methodology published by Ofgem in the Pension RIGs¹¹; and
- (iii) its Reasonableness Review with respect to the price control pension principles which could, exceptionally, result in adjustments to the PSED figure.

3.8 Allowances for PSED repair are set at/revised to levels intended to allow the licensee to clear its PSED (by making payments to the pension scheme) over a 15 year period, which began on 1 April 2010 (immediately following the cut-off date) and ends on 31 March 2025.

3.9 The setting of PSED repair allowances will include adjustments relating to the licensee's actual PSED repair payments history compared to its allowances. With respect to payments made during the DPCR5 Price Control, the policy was set out in subparagraphs (iii) and (iv) of paragraph 1.15 of Appendix 6 of the Authority's Strategy decision for RIIO-ED1 - Financial issues supplementary annex (see associated document b).

3.10 The setting of PSED repair allowances may include adjustments resulting from Reasonableness Reviews (see paragraphs 3.22 to 3.31).

3.11 The Price Control Period ends on 31 March 2023, but EDE values will be determined having regard to the projected PSED repair completion date of 31 March 2025.

Costs and adjustments outside the scope of this chapter

Pension costs for service after 31 March 2010

3.12 The following costs are dealt with as Totex expenditure in the RIIO-ED1 price control and therefore fall outside the scope of CRC 3C and this chapter:

- (a) pension costs associated with employee service after the start of the Price Control Period;

¹¹ Energy Network Operators' Price Control Pension Costs - Regulatory Instructions and Guidance: Triennial Pension Reporting Pack supplement including pension deficit allocation methodology ("Pension RIGs")

<http://www.ofgem.gov.uk/Networks/Documents1/NWO%20Triennial%20Pension%20RIGS%20supplements%20v1.0%2012Apr13.pdf>

- (b) accrued liability costs associated with employee service after the cut-off date (Pension Scheme Incremental Deficit costs); and
- (c) pension scheme administration costs and Pension Protection Fund levy costs.

Legacy true-up for ongoing pension service cost payments made by the licensee during the DPCR5 Price Control period

3.13 Under the terms of the price control that preceded the RIIO-ED1 Price Control Period (the DPCR5 Price Control), the licensee is entitled to a true-up amount derived using the difference between the level of ongoing pension costs included in its DPCR5 Revenue Allowances and the actual payments made by the licensee to the pension scheme relating to:

- (a) the funding of defined benefit pension schemes in respect of pensionable service that took place on or after 1 April 2010;
- (b) the funding of defined contribution schemes and Personal Accounts associated with Qualifying Workplace Pension Schemes under the provisions of the Pensions Act 2008; and
- (c) pension administration costs.

3.14 Any outstanding adjustment in respect of the true-up described in paragraph 3.13, in relation to outturn expenditure levels for Regulatory years 2013/14 and 2014/15, not taken into account in the calculation of the licensee's Opening Base Revenue Allowances, will be applied in accordance with the DPCR5 Pension True-up legacy adjustment set out in part 3 of this handbook.

Section 2 - Updating Pension Scheme Established Deficit repair allowances through the Annual Iteration Process

3.15 The licensee's allowances for PSED repair costs will be updated during the Price Control Period to reflect:

- (a) information contained in pension scheme actuarial valuation reports provided by the licensee to Ofgem;
- (b) the licensee's updated PSED (defined in paragraph 3.6);
- (c) information on the licensee's actual PSED repair payments history contained in price control review information submitted to Ofgem; and
- (d) the outcomes of Reasonableness Reviews (see paragraphs 3.22 to 3.31).

3.16 CRC 3C requires the Authority to determine annually whether any EDE values should be revised. However, subject to paragraph 3.18, the intention is that the values will actually be revised on two occasions during the Price Control Period, driven by the triennial scheme valuation cycle indicated in the timetable in Table 3.1

below and as set out in Tables 3.2 and 3.3. It may, however, be necessary to revise EDE values at different times if, for example:

- (a) a scheme valuation is delayed; or
- (b) the completion of a Reasonableness Review (see paragraphs 3.22 to 3.31) has been delayed because a report commissioned by Ofgem on the reasonableness of costs associated with the licensee’s pension deficit position:
 - is outstanding; or
 - has given rise to further review procedures,

3.17 For the avoidance of doubt, the revision of EDE values at a different time because of the delayed completion of a Reasonableness Review (see paragraph 13.16(b)) will not prevent the revision of EDE values on the two occasions referred to in paragraph 3.16 with respect to adjustments that can be taken into account at those times.

3.18 If any adjustments relating to the licensee’s payment history (see paragraph 3.15(c)) for Regulatory Years up to 2014/15, were not fully taken into account in the licensee’s opening EDE values, Ofgem will consider whether such adjustments should be included in proposed revisions to EDE values for the purpose of the Annual Iteration Processes that will take place by 30 November 2015 and 30 November 2016.

Table 3.1 - Expected timetable for EDE value revisions

Defined benefit pension scheme valuation as at	Expected receipt of Scheme Valuation Data Set by Ofgem	Pension Deficit Allocation Methodology information provided	Reasonableness Review completed	Revised EDE values directed for Annual Iteration Process no later than:	EDE values revised for Regulatory Year
31 March 2016	7 July 2017	30 September 2017	31 October 2017	30 November 2017	2018/19 onwards
31 March 2019	7 July 2020	30 September 2020	31 October 2020	30 November 2020	2021/22 onwards
31 March 2022	7 July 2023	30 September 2023	31 October 2023	see note	see note

Note: Information relating to the defined benefit pension scheme valuation as at 31 March 2022 will be taken into account in the setting of Pension Scheme Established Deficit repair cost allowances for the RIIO-ED2 price control.

3.19 Licensees whose scheme triennial valuation dates differ to those shown in the first column of Table 3.1 will be required to provide either a full valuation (provided it is also used to determine the scheme’s deficit recovery plan) or an updated valuation

as at these dates. The approach that should be used by the licensee to produce an updated valuation is set out in Ofgem's Pension Deficit Allocation Methodology.

3.20 As stated in paragraph 3.16, the Authority will direct revised EDE values at other times, if that is necessary to reflect any revised timetable of information availability or process completion. However, in those circumstances, EDE values would still be determined in a way that is consistent with the procedures set out in this chapter.

3.21 As set out in paragraph 3.4, revised EDE values feed directly into the recalculated base revenue figures in the PCFM for applicable Regulatory Years through the Annual Iteration Process. Incremental changes to recalculated base revenue figures for years earlier than Regulatory Year t will, subject to a Time Value of Money Adjustment, be brought forward and reflected in the calculation of the term MOD to be directed for Regulatory Year t. For the avoidance of doubt, such a revision will not have any retroactive effect on a previously directed value of the term MOD.

Reasonableness Reviews

3.22 After receiving the whole (or substantially the whole) of the licensee's Scheme Valuation Data Set (see paragraph 3.32) in respect of each defined benefit pension scheme, Ofgem will commission a report on the costs associated with the licensee's pension deficit position which it will review.

3.23 The report and review referred to in paragraph 3.22 cover overall costs and cost levels associated with over or under-payment (versus allowance) patterns. They do not cover the allocation of assets and liabilities to the PSED using the Pension Deficit Allocation Methodology.

3.24 The commissioning of the report, consideration of it and the carrying out of any further review procedures are, together, termed the Reasonableness Review.

3.25 The Reasonableness Review is referred to in paragraph 3C.5(b) of CRC 3C. The expected completion dates for the Reasonableness Reviews due to take place during the Price Control Period are shown in Table 3.1. The expected completion dates take into account Ofgem's review of the commissioned report, but they do not take into account any further review procedures (see paragraph 3.16).

3.26 Ofgem will consider the report referred to in paragraph 3.22 with respect to:

- (a) the value of the PSED for the licensee;
- (a) existing adjustment factors affecting EDE values that were put in place following a prior Reasonableness Review; and
- (b) the need for any new adjustment factors,

for the purposes of the methodologies in this chapter.

3.27 In most instances, adjustment factors are applied after Base Annual PSED Allowance levels have been derived using an unadjusted PSED value. Exceptionally,

the PSED value may be adjusted for the purpose of deriving Base Annual PSED Allowance levels.

New or extended adjustment factors

3.28 Ofgem will only introduce new adjustment factors or extend the scope or effect of existing adjustment factors (including any adjustment to the PSED value used for calculations) if the licensee is an outlier with regard to pension deficit costs in a material respect and that position is:

- (a) to the detriment of consumers; and
- (b) reasonably attributable to the licensee, recognising the responsibilities and independence of pension scheme trustees.

3.29 Before introducing any new adjustment factor or extending the scope or effect of any existing adjustment factor (including any adjustment to the PSED value used for calculations) Ofgem will:

- (a) carry out further review procedures; and
- (b) consult with the licensee.

Continuation or discontinuation of existing adjustment factors

3.30 If, after considering the report referred to in paragraph 3.22, Ofgem decides that existing adjustment factors (including any adjustment to the PSED value used for calculations) affecting EDE values that were put in place following a prior Reasonableness Review:

- (a) should continue to be applied; or
- (b) should be discontinued,

it will notify the licensee accordingly. However, subject to paragraph 3.31, a decision of this type will not necessitate further review procedures or consultation.

3.31 If an existing adjustment factor was due to expire and Ofgem considers that it should be continued beyond the expiry date, Ofgem will treat any continuation beyond the expiry date as if it were a new adjustment factor under paragraphs 3.28 and 3.29.

Scheme Valuation Data Set

3.32 The Scheme Valuation Data Set comprises:

- the actuarial valuation of each defined-benefit scheme in respect of which the licensee is a sponsoring employer, being either a full valuation or an update of the last preceding full triennial valuation, with the asset and liability values projected forward to the full valuation date on the basis set out in the Pension Deficit Allocation Methodology;
- each scheme's statement of funding principles; and

- each scheme's statement of investment principles; and any other information reasonably required.

3.33 Pension Deficit Allocation Methodology tables are submitted separately.

Section 3 – Pension Scheme Established Deficit repair allowances

Determination and direction of revised EDE values by 30 November 2017

3.34 Revised EDE values will be determined by 30 November 2017 for each Regulatory Year from 2018/19 to 2022/23 using the process set out in Table 3.2 below.

Table 3.2 - Process for determining revised EDE values to be directed by 30 November 2017

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
<i>Determination of component relating to PSED value</i>			
1	By 7 July 2017	i) Ofgem will obtain the licensee's Scheme Valuation Data Set for the valuation of the licensee's defined benefit pension schemes as at 31 March 2016 and commence a Reasonableness Review.	
2	By 31 July 2017	i) Ofgem will be in receipt of price control review information from the licensee for Regulatory Years up to and including 2016/17.	
3	By 30 September 2017	i) The licensee will submit Pension Deficit Allocation Methodology information and its indicative PSED figure as at 31 March 2016 showing the movements from 1 April 2013 to 31 March 2016.	
4	By 31 October 2017	i) Ofgem will: <ul style="list-style-type: none"> a) complete its review of the report commissioned for the purpose of a Reasonableness Review (see paragraph 3.22); and b) subject to the need for any further review procedures and consultation (see paragraphs 3.28 and 3.29) determine the PSED as at 31 March 2016. 	A

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
5		i) Ofgem will deflate the PSED to 2012/13 prices in accordance with paragraph 1.7.	B
6		i) Ofgem will establish the remaining deficit repair period as 7 years (2024/25 minus 2017/18).	
7		<p>i) Ofgem will, subject to point ii), compute the licensee's Base Annual PSED Allowance (C1) in 2012/13 prices as:</p> $C1 = B / ((1-(1+DR)^{-7}) / \text{LN}(1+DR))$ <p>where:</p> <p>DR is the discount rate specified in the licensee's Scheme Valuation Data Set or, if applicable, a different rate determined by Ofgem following a benchmarking review; and</p> <p>LN returns the natural logarithm of 1+DR.</p> <p>ii) If the valuation of the licensee's defined benefit pension schemes as at 31 March 2016 shows a surplus, Ofgem will set values B and C1 to zero and paragraph 3.36 below will apply.</p>	C1
<i>Determination of component relating to payment history in Regulatory Years up to 2009/10</i>			
8	By 31 October 2017	<p>i) Ofgem will determine the remaining amount (in 2012/13 prices) of any adjustment sum, previously determined, in respect of the licensee's actual payment levels in Regulatory Years up to and including 2009/10.</p> <p>The remaining amount means the amount of the total adjustment that has not been included in EDE values for Regulatory Years up to and including Regulatory Year 2017/18 and includes a Time Value of Money Adjustment through to Regulatory Year 2018/19.</p>	RC
9	By 31 October 2017	i) Ofgem will calculate the portion (RA1) of the remaining amount referred to in row 8 that should be attributed to each of the seven remaining years of the notional 15-year PSED repair period in 2012/13 prices using the following formula:	

Row	Timing	Event	Value
		$RA1 = RC / ((1-(1+DR)^{-7}) / LN(1+DR))$ <p>where:</p> <p>DR is the discount rate specified in the licensee's Scheme Valuation Data Set or, if applicable, a different rate determined under the Reasonableness Review; and</p> <p>LN returns the natural logarithm of 1+DR.</p>	RA1
<i>Determination of component relating to adjustments for the licensee's payment history in the DPCR5 Price Control period and elapsed Regulatory Years in the Price Control Period</i>			
10	By 31 October 2017	i) Ofgem will determine the actual PSED repair payments made by the licensee in Regulatory Years 2010/11 to 2016/17 by: <ul style="list-style-type: none"> (a) obtaining the relevant portion (attributable to the licensee's distribution business) of the actual PSED repair payments made by the licensee in each of those Regulatory Years, excluding any amounts relating to Contingent Asset costs; and (b) deflating the resulting value for each of those Regulatory Years to 2012/13 prices in accordance with paragraph 1.7. 	$D_{2010/11}$ $D_{2011/12}$ $D_{2012/13}$ $D_{2013/14}$ $D_{2014/15}$ $D_{2015/16}$ $D_{2016/17}$
11		i) Ofgem will obtain the following values, in 2012/13 prices, from the Authority's final determinations for the DPCR5 Price Control and the RIIO-ED1 price control: <ul style="list-style-type: none"> (a) the licensee's Base Annual PSED Allowances for Regulatory Years 2010/11 to 2014/15; and (b) the licensee's Base Annual PSED Allowances for Regulatory Years 2015/16 and 2016/17 that were included in the calculation of the licensee's Opening Base Revenue Allowances. 	$E_{2010/11}$ $E_{2011/12}$ $E_{2012/13}$ $E_{2013/14}$ $E_{2014/15}$ $E_{2015/16}$ $E_{2016/17}$

Row	Timing	Event	Value
12		<p>i) Ofgem will calculate the adjustment amount to be applied in respect of the difference between actual PSED repair payments and Base Annual PSED Allowance values for each Regulatory Year from 2010/11 to 2016/17 by:</p> <p>(a) subtracting the Base Annual PSED Allowance (E) from the payment (D);</p> <p>(b) factoring in the tax impact in respect of any over/under payment; and</p> <p>(c) applying a Time Value of Money Adjustment through to Regulatory Year 2018/19.</p> <p>ii) Ofgem will calculate the total adjustment amount (F_{Total}) as the sum of the adjustment amounts for Regulatory Years from 2010/11 to 2016/17.</p> <p>The value of F_{Total} may be positive or negative.</p> <p>The process set out in steps i) and ii) is represented algebraically as:</p>	<p>$F_{2010/11}$</p> <p>$F_{2011/12}$</p> <p>$F_{2012/13}$</p> <p>$F_{2013/14}$</p> <p>$F_{2014/15}$</p> <p>$F_{2015/16}$</p> <p>$F_{2016/17}$</p> <p>F_{Total}</p>

$$F_{Total} = \sum_{2010/11}^{2016/17} F$$

where:

$$F_{2010/11} = \frac{(D_{2010/11} - E_{2010/11}) \times (1 - CT_{2010/11}) \times (1 + WACC_{DPCR5})^5 \times (1 + WACC_{2015/16}) \times (1 + WACC_{2016/17}) \times (1 + WACC_{2017/18})}{1 - CT_{2018/19}}$$

$$F_{2011/12} = \frac{(D_{2011/12} - E_{2011/12}) \times (1 - CT_{2011/12}) \times (1 + WACC_{DPCR5})^4 \times (1 + WACC_{2015/16}) \times (1 + WACC_{2016/17}) \times (1 + WACC_{2017/18})}{1 - CT_{2018/19}}$$

$$F_{2012/13} = \frac{(D_{2012/13} - E_{2012/13}) \times (1 - CT_{2012/13}) \times (1 + WACC_{DPCR5})^3 \times (1 + WACC_{2015/16}) \times (1 + WACC_{2016/17}) \times (1 + WACC_{2017/18})}{1 - CT_{2018/19}}$$

$$F_{2013/14} = \frac{(D_{2013/14} - E_{2013/14}) \times (1 - CT_{2013/14}) \times (1 + WACC_{DPCR5})^2 \times (1 + WACC_{2015/16}) \times (1 + WACC_{2016/17}) \times (1 + WACC_{2017/18})}{1 - CT_{2018/19}}$$

$$F_{2014/15} = \frac{(D_{2014/15} - E_{2014/15}) \times (1 - CT_{2014/15}) \times (1 + WACC_{DPCR5}) \times (1 + WACC_{2015/16}) \times (1 + WACC_{2016/17}) \times (1 + WACC_{2017/18})}{1 - CT_{2018/19}}$$

$$F_{2015/16} = \frac{(D_{2015/16} - E_{2015/16}) \times (1 - CT_{2015/16}) \times (1 + WACC_{2015/16}) \times (1 + WACC_{2016/17}) \times (1 + WACC_{2017/18})}{1 - CT_{2018/19}}$$

$$F_{2016/17} = \frac{(D_{2016/17} - E_{2016/17}) \times (1 - CT_{2016/17}) \times (1 + WACC_{2016/17}) \times (1 + WACC_{2017/18})}{1 - CT_{2018/19}}$$

and where:

$CT_{20XX/XX}$ means the actual or, with respect to Regulatory Year 2018/19, prospective rate of Corporation Tax applicable to the licensee in Regulatory Year 20XX/XX, unless the licensee had no modelled taxable profits in the Regulatory Year concerned in which case it takes the value zero;

$WACC_{DPCR5}$ means the Vanilla Weighted Average Cost of Capital applicable to the licensee during the DPCR5 Price Control period; and

$WACC_{20XX/XX}$ means the Vanilla Weighted Average Cost of Capital applicable to the licensee during Regulatory Year 20XX/XX, calculated using the allowed percentage cost of corporate debt (CDE value) for the licensee directed by the Authority for the Regulatory Year concerned.

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
13	By 31 October 2017	i) Any adjustment amount (in 2012/13 prices) relating to the licensee's payment history in Regulatory Years 2010/11 to 2016/17, that was included in the calculation of the licensee's Opening Base Revenue Allowances for Regulatory Years 2015/16, 2016/17 and 2017/18 will be deducted from the value of F_{Total} calculated under points i) and ii) in row 12.	RD

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
14	By 31 October 2017	<p>i) Ofgem will calculate the portion (G1) of the total adjustment amount (F_{Total}) that should be attributed to each of the seven remaining years of the notional 15-year PSED repair period in 2012/13 prices using the following formula:</p> $G1 = (F_{Total} - RD) / ((1 - (1 + DR)^{-7}) / \ln(1 + DR))$ <p>where:</p> <p>DR is the discount rate specified in the licensee's Scheme Valuation Data Set or, if applicable, a different rate determined under the Reasonableness Review; and</p> <p>LN returns the natural logarithm of 1+DR.</p>	G1
<i>Determination of component relating to adjustment factors resulting from Reasonableness Reviews</i>			
15	By 31 October 2017	<p>i) After considering the report on the costs associated with the licensee's pension deficit position referred to in paragraph 3.22, Ofgem will decide whether any existing adjustment factors affecting EDE values that were put in place following a prior Reasonableness Review:</p> <p>(a) should continue to be applied; or</p> <p>(b) should be discontinued (with or without retroactivity).</p> <p>ii) Having made the decision referred to in point i), Ofgem will calculate the adjustment that should be attributed to each of the seven remaining years of the notional 15-year PSED repair period in 2012/13 prices, having regard to the terms on which the adjustment factor was originally applied.</p> <p>If, after considering the report on the costs associated with the licensee's pension deficit position referred to in paragraph 3.22, Ofgem decides that a new adjustment factor should be applied or that the scope or effect of</p>	AF1

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
		an existing adjustment factor should be extended, it will follow the process described in paragraphs 3.28 and 3.29. In such a case, as part of the further review and consultation process, Ofgem will consider the basis and timing for any revision of EDE values for the licensee (see paragraph 3.16).	
<i>Calculation of revised EDE values</i>			
16		i) Ofgem will calculate the revised EDE value for each Regulatory Year from 2018/19 to 2022/23 as: $\text{EDE} = \text{C1} + \text{RA1} + \text{G1} + \text{AF1}.$	EDE

3.35 The adjustments relating to the licensee's payment history (see rows 8 to 13 in Table 3.2) address a position where the licensee has paid amounts to the pension scheme in particular Regulatory Years that are greater than or lower than the Base Annual PSED Allowances it was given for the Regulatory Years concerned.

Scheme surplus

3.36 If the difference between the assets and corresponding liabilities referred to in paragraph 3.6 represents a surplus position for the PSED as at 31 March 2016, then values for C1 (see row 7 in table 3.2) for Regulatory Years from 2018/19 onwards will be revised to zero pending the next review process set out in Table 3.3. However, if applicable, the calculation of adjustment components relating to the licensee's payment history and to adjustment factors resulting from Reasonableness Reviews would still be carried out, giving values for RA1, G1 and AF1 respectively. Those values (which may be negative) would, in that circumstance, give the value of the term EDE for each Regulatory Year from 2018/19 to 2022/23 pending the next review process. The policy position with regard to pension scheme surpluses is set out in paragraphs 1.11 to 1.14 of the Authority's Strategy decision for RIIO-ED1 - Financial issues supplementary annex - see associated document b.

Determination and direction of revised EDE values by 30 November 2020

3.37 Revised EDE values will be determined by 30 November 2020 for Regulatory Years 2021/22 and 2022/23 using the process set out in Table 3.3 below.

Table 3.3 - Process for determining revised EDE values to be directed by 30 November 2020

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
<i>Determination of component relating to PSED value</i>			
1	By 7 July 2020	i) Ofgem will obtain the licensee's Scheme Valuation Data Set for the valuation of the licensee's defined benefit pension schemes as at 31 March 2019 and commence a Reasonableness Review.	
2	By 31 July 2020	i) Ofgem will be in receipt of price control review information from the licensee for Regulatory Years up to and including 2019/20.	
3	By 30 September 2020	i) The licensee will submit Pension Deficit Allocation Methodology information and its indicative PSED figure as at 31 March 2019 showing the movements from 1 April 2016 to 31 March 2019.	
4	By 31 October 2020	i) Ofgem will: <ul style="list-style-type: none"> a) complete its review of the report commissioned for the purpose of a Reasonableness Review (see paragraph 3.22); and b) subject to the need for any further review procedures and consultation (see paragraphs 3.28 and 3.29) determine the PSED as at 31 March 2019. 	A
5		i) Ofgem will deflate the PSED to 2012/13 prices in accordance with paragraph 1.7.	B
6		i) Ofgem will establish the remaining deficit repair period as 4 years (2024/25 minus 2020/21).	
7		i) Ofgem will, subject to point ii), compute the licensee's Base Annual PSED Allowance (C2) in 2012/13 prices as: $C2 = B / ((1 - (1 + DR)^{-4}) / \ln(1 + DR))$ <p>where:</p> <p>DR is the discount rate specified in the licensee's Scheme Valuation Data Set or, if applicable, a different rate determined by Ofgem following a</p>	C2

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
		<p>benchmarking review; and</p> <p>LN returns the natural logarithm of 1+DR.</p> <p>ii) If the valuation of the licensee's defined benefit pension schemes as at 31 March 2019 shows a surplus, Ofgem will set values B and C2 to zero and paragraph 3.39 below will apply.</p>	
<i>Determination of component relating to payment history in Regulatory Years up to 2016/17</i>			
8	By 31 October 2020	<p>i) Ofgem will determine the remaining amount (in 2012/13 prices) of any adjustment sums, previously determined, in respect of the licensee's actual payment levels in Regulatory Years up to 2016/17.</p> <p>The remaining amount means the amount of the total adjustment that has not been included in EDE values for Regulatory Years up to and including Regulatory Year 2020/21 and includes a Time Value of Money Adjustment through to Regulatory Year 2021/22.</p>	RC
9	By 31 October 2020	<p>i) Ofgem will calculate the portion (RA2) of the remaining amount referred to in row 8 that should be attributed to each of the four remaining years of the notional 15-year PSED repair period in 2012/13 prices using the following formula:</p> $RA2 = RC / ((1-(1+DR)^{-4}) / LN(1+DR))$ <p>where:</p> <p>DR is the discount rate specified in the licensee's Scheme Valuation Data Set or, if applicable, a different rate determined under the Reasonableness Review; and</p> <p>LN returns the natural logarithm of 1+DR.</p>	RA2

Row	Timing	Event	Value
<i>Determination of component relating to adjustments for the licensee’s payment history in Regulatory Years 2017/18, 2018/19 and 2019/20</i>			
10	By 31 October 2020	i) Ofgem will determine the actual PSED repair payments made by the licensee in Regulatory Years 2017/18, 2018/19, and 2019/20 by: <ul style="list-style-type: none"> (a) obtaining the relevant portion (attributable to the licensee’s distribution business) of the actual PSED repair payments made by the licensee in each of those Regulatory Years, excluding any amounts relating to Contingent Asset costs; and (b) deflating the resulting value for each of those Regulatory Years to 2012/13 prices in accordance with paragraph 1.7. 	$D_{2017/18}$ $D_{2018/19}$ $D_{2019/20}$
11	By 31 October 2020	i) Ofgem will obtain the licensee’s Base Annual PSED Allowances for Regulatory Years 2017/18, 2018/19 and 2019/20.	$E_{2017/18}$ $E_{2018/19}$ $E_{2019/20}$
12		i) Ofgem will calculate the adjustment amount to be applied in respect of the difference between actual PSED repair payments and Base Annual PSED Allowance values for each Regulatory Year from 2017/18 to 2019/20 by: <ul style="list-style-type: none"> (a) subtracting the allowance (E) from the payment (D); (b) factoring in the tax impact in respect of any over/under payment; and (c) applying a Time Value of Money Adjustment through to Regulatory Year 2021/22. ii) Ofgem will calculate the total adjustment amount (F_{Total}) as the sum of the adjustment amounts	$F_{2017/18}$ $F_{2018/19}$ $F_{2019/20}$

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
		<p>for Regulatory Years from 2017/18 to 2019/20.</p> <p>The value of F_{Total} may be positive or negative.</p> <p>The process set out in steps i) and ii) is represented algebraically as:</p>	F_{Total}

$$F_{Total} = \sum_{2017/18}^{2019/20} F$$

where:

$$F_{2017/18} = \frac{(D_{2017/18} - E_{2017/18}) \times (1 - CT_{2017/18}) \times (1 + WACC_{2017/18}) \times (1 + WACC_{2018/19}) \times (1 + WACC_{2019/20}) \times (1 + WACC_{2020/21})}{1 - CT_{2021/22}}$$

$$F_{2018/19} = \frac{(D_{2018/19} - E_{2018/19}) \times (1 - CT_{2018/19}) \times (1 + WACC_{2018/19}) \times (1 + WACC_{2019/20}) \times (1 + WACC_{2020/21})}{1 - CT_{2021/22}}$$

$$F_{2019/20} = \frac{(D_{2019/20} - E_{2019/20}) \times (1 - CT_{2019/20}) \times (1 + WACC_{2019/20}) \times (1 + WACC_{2020/21})}{1 - CT_{2021/22}}$$

and where:

$CT_{20XX/XX}$ means the actual or, with respect to Regulatory Year 2021/22, prospective rate of Corporation Tax applicable to the licensee in Regulatory Year 20XX/XX, unless the licensee had no modelled taxable profits in the Regulatory Year concerned in which case it takes the value zero; and

$WACC_{20XX/XX}$ means the Vanilla Weighted Average Cost of Capital applicable to the licensee during Regulatory Year 20XX/XX, calculated using the allowed percentage cost of corporate debt (CDE value) for the licensee directed by the Authority for the Regulatory Year concerned.

<u>Row</u>	<u>Timing</u>	<u>Event</u>	<u>Value</u>
13		<p>i) Ofgem will calculate the portion (G2) of the total adjustment amount (F_{Total}) that should be attributed to each of the four remaining years of the notional 15-year PSED repair period in 2012/13 prices using the following formula:</p> $G2 = F_{Total} / ((1-(1+DR)^{-4}) / LN(1+DR))$ <p>where:</p> <p>DR is the discount rate specified in the licensee's Scheme Valuation Data Set or, if applicable, a different rate determined under the Reasonableness Review; and</p> <p>LN returns the natural logarithm of 1+DR.</p>	G2
<i>Determination of component relating to adjustment factors resulting from Reasonableness Reviews</i>			
14	By 31 October 2020	<p>i) After considering the report on the costs associated with the licensee's pension deficit position referred to in paragraph 3.22, Ofgem will decide whether any existing adjustment factors affecting EDE values that were put in place following a prior Reasonableness Review:</p> <p>(a) should continue to be applied; or</p> <p>(b) should be discontinued (with or without retroactivity).</p> <p>ii) Having made the decision referred to in point i), Ofgem will calculate the adjustment that should be attributed to each of the four remaining years of the notional 15-year PSED repair period in 2012/13 prices, having regard to the terms on which the adjustment factor was originally applied.</p> <p>If, after considering the report on the costs associated with the licensee's pension deficit position referred to in paragraph 3.22, Ofgem decides that a new adjustment</p>	AF2

		factor should be applied or that the scope or effect of an existing adjustment factor should be extended, it will follow the process described in paragraphs 3.28 and 3.28. In such a case, as part of the further review and consultation process, Ofgem will consider the basis and timing for any revision of EDE values for the licensee (see paragraph 3.16).	
<i>Calculation of revised EDE values</i>			
15		i) Ofgem will calculate the revised EDE value for Regulatory Years 2021/22 and 2022/23 as: $EDE = C2 + RA2 + G2 + AF2.$	EDE

3.38 The adjustments relating to the licensee's payment history (see rows 8 to 13 in Table 3.3) address a position where the licensee has paid amounts to pension scheme trustees in particular Regulatory Years that are greater than or lower than the Base Annual PSED Allowances it was given for the Regulatory Years concerned.

Scheme surplus

3.39 If the difference between the assets and corresponding liabilities referred to in paragraph 3.6 represents a surplus position for the PSED as at 31 March 2019, then values for C2 (see row 7 in table 3.3) for Regulatory Years from 2021/22 onwards will be revised to zero pending the next review process. However, if applicable, the calculation of adjustment components relating to the licensee's payment history and to adjustment factors resulting from Reasonableness Reviews would still be carried out, giving values for RA2, G2 and AF2 respectively. Those values (which may be negative) would, in that circumstance, give the value of the term EDE for Regulatory Years 2021/22 and 2022/23 pending the next review process. The policy position with regard to pension scheme surpluses is set out in paragraphs 1.11 to 1.14 of the Authority's Strategy decision for RIIO-ED1 - Financial issues supplementary annex - see associated document b.

Direction of revised EDE values

3.40 The Authority will direct revised EDE values by no later than 30 November 2017 and 30 November 2020 in accordance with the procedure set out in Part D of CRC 3C (but see also paragraphs 3.16 and 3.18).

Section 4 - Processing of revised EDE values under the Annual Iteration Process

3.41 EDE values, as revised, are included in full in recalculated base revenue figures in the PCFM under the Annual Iteration Process and are treated as 100 per cent Fast Money.

3.42 Incremental changes to recalculated base revenue figures for years earlier than Regulatory Year t will, subject to a Time Value of Money adjustment, be brought forward and reflected in the calculation of the term MOD to be directed for Regulatory Year t. For the avoidance of doubt, such a revision will not have any retroactive effect on a previously directed value of the term MOD.

3.43 EDE values are not added to RAV and are not subject to the Totex Incentive Mechanism.

4. Tax liability allowances - financial adjustment methodologies

Section 1 - Overview

4.1 The Opening Base Revenue Allowances ('PU' values) for the licensee set down in the table at Appendix 1 to CRC 2A (Restriction of Allowed Distribution Network Revenue) include tax liability allowances that are modelled at the outset of the Price Control Period to take account of:

- (a) existing and announced corporation tax rates and writing down allowance rates;
- (b) existing legislation, case law, accounting standards and HM Revenue & Customs (HMRC) policy; and
- (c) modelled levels of gearing and corporate debt interest payments for the licensee.

4.2 Part B of CRC 3C (Specified financial adjustments) provides for adjustments to be made to the licensee's tax liability allowances¹² during the Price Control Period through the Annual Iteration Process for the ED1 Price Control Financial Model (PCFM). Changes to the factors referred to at subparagraphs 4.1(a) and (b) are referred to as 'tax trigger events' and the methodology for adjustments that may result from these is set out in section 2 of this chapter. Adjustments that are the result of changes to the factors referred to at subparagraph 4.1(c) are referred to as 'tax clawbacks' and the methodology for such adjustments is set out in section 3 of this chapter.

Annual Iteration Process

TTE and TGIE values

4.3 The adjusting of the licensee's tax liability allowances and regulatory tax losses balance (see paragraph 4.11) is carried out through the Annual Iteration Process for the PCFM. The PCFM Variable Values Table for the licensee contains rows for PCFM Variable Values for tax liability allowance adjustments relating to:

- tax trigger events ('TTE' values); and
- tax clawbacks ('TGIE values').

¹² References in this chapter to tax liabilities are references to liabilities for corporation tax only and not to any other type of taxation.

4.4 TTE and TGIE values represent £m amounts. As at 1 April 2015, the TTE and TGIE values for the licensee, for each Regulatory Year will be zero. Part B of CRC 3C provides for any revisions to TTE and TGIE values to be directed after determination under the methodologies in this chapter.

4.5 Subject to paragraph 4.7, revisions to TTE and TGIE values feed into the recalculated base revenue figures and/or the regulatory tax loss balances for applicable Regulatory Years in the PCFM through the Annual Iteration Process. Incremental changes to recalculated base revenue figures for years earlier than Regulatory Year t are, subject to a Time Value of Money Adjustment, brought forward and reflected in the calculation of the term MOD to be directed for Regulatory Year t. For the avoidance of doubt, such changes will not have any retroactive effect on a previously directed value of the term MOD.

4.6 Any recalculation of the licensee's tax liability allowances necessarily includes an iterative modelling aspect: an increased allowance gives rise to an increased liability which requires an increased allowance and so on. The effect can be either positive or negative. This 'tax allowance on tax allowance' issue is dealt with as follows:

- In respect of tax trigger adjustments, revised TTE values (determined using the tax trigger calculation tool referred to in the methodology in section 2 of this chapter) incorporate the iterative calculations and no further processing is required as part of the Annual Iteration Process.
- In respect of tax clawback adjustments, revised TGIE values (determined under the methodology in section 3 of this chapter) do not incorporate the iterative calculations and these are instead factored into recalculated base revenue figures by functionality within the PCFM as part of the Annual Iteration Process.

4.7 It should be noted that underlying tax liability allowances for the licensee within the PCFM may also be changed under the Annual Iteration Process as a consequence of other variable value changes, such as increases in allowed Totex expenditure. However, these changes are distinct from the specific adjustments to tax liability allowances under the methodologies in this chapter.

Legacy price control adjustments to opening tax pool balances

4.8 Tax liability allowance calculations under the Annual Iteration Process make use of regulatory tax pool balance figures held within the PCFM. The opening balances (as at 1 April 2015) for these tax pools may be subject to legacy price control adjustments through revisions to LTPG, LTPS, LTPD and LTPC PCFM Variable Values. These adjustments are covered in chapter 14. The allocation of component elements of allowed DPCR5 Price Control totex expenditure to capital allowance pools and revenue expenditure in the PCFM was fixed at the outset of the Price Control Period and will not be updated during the Price Control Period.

Price bases for tax calculations

4.9 The PCFM works predominantly in constant 2012/13 prices, with all inputs and outputs in this price base. The methodologies in this chapter provide for values that are expressed in nominal prices to be deflated to 2012/13 prices in accordance with paragraph 1.7 in chapter 1 before being used to determine revised TTE and TGIE values.

4.10 The PCFM uses nominal prices for some internal tax calculation functions. For this purpose, the PCFM refers to RPI forecast values set at the outset of the Price Control Period.

Regulatory tax losses

4.11 In some instances, the approach to calculating tax liability allowances could imply that the licensee could receive a negative allowance. In such cases, the price control treatment is to model a zero allowance and to record the tax loss arising as a 'regulatory tax loss' figure, to be deducted from the taxable profits before the tax is calculated for any tax liability allowances that would otherwise be allocated to the year concerned or later years. The regulatory tax loss balance attributable to each Regulatory Year (together with a running total) is held within the PCFM and regulatory tax losses are referred to where applicable in the methodologies in this chapter.

Group tax arrangements

4.12 For the purposes of the methodology set out in section 2 of this chapter, tax liabilities, allowances and trigger events are considered on a notional 'licensee business' basis, and consequently the following are disregarded in the assessment of tax liabilities and allowances for price control purposes:

- the claim or surrender of group tax relief (including consortium relief);
- interest payments (including any coupons on debt instruments or preference share dividends) and receipts that are not tax deductible or chargeable under HMRC rules for the purposes of computing the licensee's taxable profits, including but not limited to adjustments for transfer pricing and the 'worldwide debt cap'; and
- any other adjustments required in appendix 1 of Ofgem's open letter dated 31 July 2009 (Clawback of tax benefit due to excess gearing)¹³.

4.13 For the purposes of the methodology set out in section 3 of this chapter, levels of debt, interest and gearing are considered at licensee level, as opposed to

¹³ <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=49&refer=Networks> and as amended for the treatment of hybrid financial instruments

any other level with respect to the corporate or ownership group of which the licensee is a member.

Section 2 - Adjustments driven by tax trigger events - methodology

4.14 The methodology set out in this section provides for the licensee's tax liability allowances to be adjusted (subject to a threshold described below) to take account of tax trigger events. This means that consumers will derive a benefit when tax liability costs fall materially, and the licensee will be appropriately reimbursed when they rise.

Tax trigger events

4.15 There are two types of tax trigger event for the purposes of tax liability allowance adjustments:

Type A

Type A events consist of:

- changes to corporation tax rates, applicable to one or more Regulatory Years, that have been enacted into law; and
- changes to capital allowance rates applicable to one or more Regulatory Years, that have been enacted into law.

Type B

Type B events consist of other factors (exogenous to the licensee, its owners or controllers) that cause a change to the licensee's notional tax liabilities¹⁴ for one or more Regulatory Years including:

- changes to applicable legislation;
- the setting of legal precedents through case law;
- changes to HMRC interpretation of legislation; and
- changes in accounting standards.

4.16 Where a Type B event consists of changes to statutory capital allowance pools, or to the allocation of expenditure to such pools, an appropriate £m adjustment (from the effective date of the new requirement) will be factored into

¹⁴ The tax liability which would be modelled if the event was taken into account.

subsequent TTE value revisions for the licensee. Ofgem will work with licensees to agree the financial effect of revised tax pool allocation requirements where these are not straightforward.

4.17 Type B events will only be taken into account for the purposes of increasing the licensee's tax liability allowances where the licensee has demonstrably used its reasonable endeavours to minimise any increase in its tax liabilities.

Materiality threshold and 'deadband'

4.18 A materiality threshold is applied to tax trigger events during the Price Control Period and a £m threshold amount for each Regulatory Year is included amongst the fixed values on the Tax Trigger sheet for the licensee in the PCFM.

4.19 A change to the licensee's notional tax liability allowance for a particular Regulatory Year is only applied where one or more trigger events would result in a tax liability allowance change for that year whose absolute value is greater than the threshold amount. Furthermore, any change to the tax liability allowance (upward or downward) is limited to the amount that is in excess of the threshold amount for the Regulatory Year concerned.

4.20 Where the change to the licensee's tax liability allowance for a particular Regulatory Year is below the threshold, subsequent tax trigger events, relating back to that Regulatory Year, could cause the threshold amount to be exceeded. In that case, a change to the licensee's tax liability allowance for the Regulatory Year concerned (a revised TTE value) would be determined once the threshold had been exceeded. It should be noted that there is no retrospective adjustment to the value of MOD terms already directed: adjustments would instead be included in the calculation of a subsequent value for the term MOD.

4.21 For the avoidance of doubt, a regulatory tax loss figure attributable to a particular Regulatory Year is not taken into account for the purposes of deciding whether the threshold amount has been exceeded for that year.

4.22 The licensee's tax liability calculations are subject to:

- changes to applicable legislation;
- the setting of legal precedents through case law;
- changes to HMRC interpretation of legislation; and
- changes in accounting standards applicable to preparation of the licensee's statutory accounts¹⁵.

¹⁵ Section 385 of the Companies Act 2006 refers.

4.23 The accounting framework to be applied by the licensee for the purpose of computing tax liabilities is either:

- EU-IFRS, if adopted for use by the licensee; or
- UK GAAP under Financial Reporting Standard 102.

Notification of tax trigger events

Type A trigger events

4.24 Ofgem will, by 30 September in each Regulatory Year t-1, notify the licensee of the Type A trigger events that it proposes to take into account in determining any revised TTE values for use in the Annual Iteration Process that is required to take place by 30 November in that same Regulatory Year t-1. It is, however, open to the licensee to contact Ofgem in advance of 30 September in each Regulatory Year t-1 to discuss the current view of Type A events. The notification from Ofgem will specify the corporation tax rate change(s) or changes to rates of capital allowances concerned and the Regulatory Years to which they relate.

4.25 If, after receiving the notification referred to in paragraph 4.24, the licensee considers that a Type A trigger event has occurred that has not been included in the notification, it should contact Ofgem within 14 days and provide details of the event concerned. If Ofgem agrees that a further Type A trigger event has occurred, it will notify the licensee by 31 October in the same Regulatory Year t-1.

4.26 If any Type A trigger event is left out of account when it ought to have been included in the determination of a revised TTE value (either because it was not included in a notice or otherwise) the position will be rectified in a subsequent revision of the TTE value(s) concerned. In such a case, the functionality of the PCFM means that a Time Value of Money Adjustment would be applied.

Type B trigger events

4.27 The licensee must notify Ofgem on or before 30 September in each Regulatory Year t-1 of all the Type B trigger events that it has become aware of by that time, except those that have been previously notified. This requirement applies equally to events that could be expected to increase or to reduce the licensee's tax liability allowances.

4.28 For the purpose of complying with the requirement set out in paragraph 4.27, the licensee must use its reasonable endeavours to identify and record Type B trigger events.

4.29 The notification referred to in paragraph 4.27 should include, in respect of each Type B trigger event:

- (a) a description of the event;
- (b) the changes in tax liability allowances that the event is considered to have caused and the Regulatory Years to which they relate;
- (c) the calculations (including all relevant parameters and values) that the licensee used to arrive at the amounts referred to in subparagraph (b) – in performing these calculations the licensee should include a 'tax allowance on tax allowance' factor as explained in paragraph 4.6 but should ignore the tax trigger deadband which is adjusted for in paragraph 4.39;
- (d) any relevant information provided by HMRC in relation to the event;
- (e) evidence of mitigating measures that the licensee has taken to minimise any additional liabilities arising from the event; and
- (f) comments by the licensee on:
 - the relevance of the event to its tax position,
 - whether grounds exist to contest the applicability of the event to the licensee, and
 - the reporting treatment the licensee expects to apply in its tax submissions to HMRC and in its Regulatory Accounts.

4.30 The licensee's notification should also state whether it considers that the materiality threshold (see paragraph 4.18) has been exceeded for the Regulatory Year(s) concerned, taking into account the total net amount of tax liability changes (upward and downward) included in the current notification and any previous notifications.

4.31 Ofgem will review any notifications given to it by the licensee under paragraph 4.27 and may ask the licensee:

- for additional information in respect of one or more of the notified events; and/or
- to submit the results of agreed upon audit procedures specified by Ofgem and carried out by the licensee's Appropriate Auditor, to assist in confirming the appropriateness and accuracy of the licensee's calculations.

4.32 Ofgem will inform the licensee by 31 October in the same Regulatory Year t-1 whether, in respect of each Type B trigger event:

- (a) it has agreed (on a provisional or confirmed basis) the change in tax liabilities figure calculated by the licensee;
- (b) it has determined (on a provisional or confirmed basis) a different change in tax liabilities figure from that calculated by the licensee; or
- (c) it has decided that consideration of any change in tax liabilities should be deferred until further/better information is available.

4.33 In deciding which of the actions set out in paragraph 4.32 should be taken, Ofgem will, without limitation, take account of whether the licensee has conclusively agreed its tax liabilities for the Regulatory Year concerned with HMRC. Where there has been a provisional agreement/determination or a deferral of consideration, the TTE values concerned will be subject to further revision for the purposes of a later Annual Iteration Process (see also paragraph 4.43).

4.34 Where Ofgem determines a different change in tax liabilities figure from that calculated by the licensee or decides that consideration of any change in tax liabilities should be deferred, it will set out its reasons and/or calculations. The licensee has the right to reply setting out its objections, which Ofgem will consider.

4.35 Ofgem will also notify the licensee by 31 October in each Regulatory Year t-1 of any Type B trigger events that it proposes to take into account that have not been included in a notification sent to Ofgem by the licensee. The licensee has the right to reply setting out its objections, which Ofgem will consider.

4.36 If Ofgem has not finished considering any matters raised by the licensee under paragraph 4.34 or paragraph 4.35 before giving the licensee the Notice required under paragraph 3C.23 of CRC 3C, the Authority will through business correspondence, apprise the licensee of any provisionality it has applied in determining the revised TTE values that it proposes to direct, that might entail a further revision to those values for use in the next Annual Iteration Process.

Logging of trigger events

4.37 Ofgem will keep a log of tax trigger events that have been subject to notifications by it or by the licensee showing for each event:

- a description of the event and whether it was Type A or Type B;
- the name of the party who notified the event (Ofgem or licensee);
- the date of notification;
- the amount of any change in the licensee's tax liabilities that has been determined under the procedures set out below; and
- details of any events for which a determination is in abeyance and a description of the outstanding actions to be taken.

Determination and direction of revised TTE values

Determination of revised TTE values using the tax trigger calculation tool

4.38 The design of the PCFM includes additional functionality meaning that a copy of the PCFM can be used as a tax trigger calculation tool, as an adjunct to the Annual Iteration Process.

4.39 Once a tax trigger event has taken place at any point in the RIIO-ED1 Price Control Period, then after 31 October in each Regulatory Year t-1, Ofgem will generate a duplicate copy of the PCFM, in its state following the last completed Annual Iteration Process (but including any subsequent functional modifications made under the provisions of CRC 4A (Governance of ED1 Price Control Financial Instruments)) for use as the tax trigger calculation tool. It will then take the following steps to determine TTE values for each licensee:

- (i) All of the other PCFM Variable Value revisions that have been determined for use in the prospective Annual Iteration Process (and which Ofgem expects to include in the notices of proposed Variable Value revisions to licensees) will be input into the PCFM Variable Values Table for the licensee. The correct Regulatory Year will be selected using the PCFM 'year t selector' on the User Interface worksheet of the PCFM.
- (ii) All of the existing TTE values in the PCFM Variable Values Table for the licensee will be reset to zero.
- (iii) Any existing values in the yellow input cells on the tax trigger worksheet will be cleared with the exception of the tax trigger deadband values.
- (iv) The 'Tax allowance before tax trigger' amount for the licensee for each Regulatory Year shown on the tax trigger worksheet will be noted.
- (v) The PCFM copy will be put into 'tax trigger tool mode' using the selector on the Tax Trigger worksheet.
- (vi) Changes to corporation tax rates or writing down allowance rates (reflecting Type A trigger events) will be input into the yellow input cells in the appropriate rows and Regulatory Year columns on the tax trigger worksheet.
- (vii) The tax trigger macro calculation programmed into the workbook will be run.
- (viii) The aggregate changes to the licensee's tax liability allowances determined in respect of all Type B trigger events (whether notified during Regulatory Year t-1 or on an earlier occasion) will be input into the yellow input cells on the 'Type B event values' row in the appropriate Regulatory Year columns on the tax trigger worksheet. This value should include the iterative tax allowance on tax allowance factor referred to in paragraph 4.6.
- (ix) The tax trigger macro calculation will be rerun.

- (x) The 'Tax allowance before tax trigger' referred to at step (iv) will be deducted from the 'Tax allowance' that has been calculated based on the new inputs (including both Type A and Type B trigger events).
- (xi) The absolute value of the amount obtained under step (x) will be ascertained.
- (xii) If the absolute value ascertained at step (xi) is less than the deadband amount (which is a fixed amount for each Regulatory Year), the tax trigger adjustment is shown as zero; otherwise step (xiii) applies.
- (xiii) If the value calculated at step (xi) is greater than the deadband amount then:
 - (i) if the amount obtained under step (x) is negative, the tax trigger adjustment is shown as that amount plus the deadband; or
 - (ii) if the amount obtained under step (x) is positive, the tax trigger adjustment is shown as that amount minus the deadband.

4.40 Subject to paragraph 4.43, the relevant amounts obtained under step (xii) or (xiii) will then be determined to be the TTE values for the licensee for each Regulatory Year where the deadband has been exceeded. Where these values differ from the TTE values shown on the PCFM Variable Values Table for the licensee (following the last completed Annual Iteration Process), the Authority will direct that the TTE values concerned are to be revised in accordance with the process set out in Part D of CRC 3C (Specified financial adjustments) and referred to below.

4.41 The two stage calculation process referred to in steps (vii) and (ix) allows the tax trigger calculation tool to take full account of the interrelationship between Type A and Type B events. The nullification of existing TTE values referred to in step (ii) together with the inclusion of all determined changes to the licensee's tax liabilities referred to in step (viii) ensures that the determination of TTE values under step (xiii) is on a consistent basis and accurately applies the materiality threshold/ deadband applicable to each Regulatory Year. The inclusion of all available revisions to other PCFM Variable Values under step (i) ensures that the tax allowance calculation is as up to date as possible for each Regulatory Year.

4.42 Once a tax trigger event has occurred in any year, the tax trigger calculation, including the materiality assessment, will need to be run in respect of all subsequent Annual Iteration Processes, even if no further tax trigger event has occurred.

4.43 The process set out in paragraph 4.39 will be reperformed if any of the prospective PCFM Variable Value revisions referred to at step (i) are changed, to ensure that accurate TTE values are available for the Annual Iteration Process.

Direction of revised TTE values

4.44 The Authority will direct any revisions to TTE values for the licensee by 30 November in each Regulatory Year t-1, having given the licensee at least 14 days' notice of the values that it proposes to direct in accordance with Part D of CRC 3C.

4.45 Revised TTE values can be directed in respect of a particular Annual Iteration Process for any Regulatory Year during the Price Control Period, including for years later than Regulatory Year t.

4.46 The procedure for the Authority's direction of revised TTE values is set out in Part D of CRC 3C.

Section 3 - Adjustments driven by gearing levels and corporate debt interest costs ('tax clawback') - methodology

4.47 At the outset of the Price Control Period, modelling assumptions are made about financing requirements, gearing levels and corporate debt costs for the licensee's business. These assumptions result in modelled levels of tax-deductible interest costs and associated tax relief for the licensee.

4.48 If the licensee operates at a higher level of gearing than the modelled level, it stands to benefit from the tax value of higher levels of deductibility. Ofgem applies a mechanism that 'claws back' this benefit for consumers by updating the licensee's tax liability allowances using the methodology set out in this section. It should be noted that there is no provision to give additional tax allowances to the licensee if it chooses to operate at a level of gearing lower than the modelled one.

Determination and direction of revised TGIE values

4.49 As a function of each Annual Iteration Process for the PCFM, the expected (modelled) amount of tax deductible interest payable by the licensee is recalculated for each Regulatory Year in the Price Control Period. Recalculated interest figures are shown at row 233 on the Finance and Tax worksheet of the PCFM and it is the 'core' amount of interest associated with base revenue calculations that is relevant for tax clawback considerations and which is referred to in the remainder of this section.

4.50 After 30 September in each Regulatory Year, Ofgem will obtain the following values from a copy of the PCFM, in its state following the last completed Annual Iteration Process (and including any functional modifications under CRC 4A)¹⁶:

¹⁶ The determination in respect of Regulatory Year t-2 will use the data subsisting immediately after the preceding Annual Iteration Process, which will have taken place by 30 November in

- (i) the most recently modelled figure for tax-deductible interest payable by the licensee in Regulatory Year t-2; and
- (ii) the licensee's indicative RAV balance in 2012/13 prices as at 31 March in Regulatory Year t-2.

4.51 The indicative RAV balance referred to in paragraph 4.50(ii) will then be inflated to year-end prices for Regulatory Year t-2, using the arithmetic average of the RPI data for March of Regulatory Year t-2 and April of Regulatory Year t-1.

4.52 Ofgem will obtain from the tax clawback worksheet in the licensee's price control cost information return the reported figures for:

- (i) adjusted net debt as at 31 March in Regulatory Year t-2, in nominal prices; and
- (ii) tax deductible net interest paid during Regulatory Year t-2, in nominal prices, measured on an accruals basis.

4.53 The tax-deductible net interest paid figure referred to in paragraph 4.52(ii) is ascertained on an accruals basis. The criteria for reporting the figures are set out in the RIGs.

4.54 The figures referred to in paragraph 4.52 will be deflated to 2012/13 prices using the approach set out in paragraph 1.7.

Applicability tests

4.55 Ofgem will use two tests: a gearing level test and a positive tax benefit test, to determine the TGIE value for the licensee in respect of Regulatory Year t-2.

Gearing level test

4.56 Ofgem will divide the licensee's net debt figure as at 31 March in Regulatory Year t-2 (see paragraph 4.52(i)) by the licensee's indicative PCFM RAV balance (see paragraph 4.51 as at 31 March in Regulatory Year t-2) to calculate the licensee's gearing ratio.

4.57 If the calculated gearing ratio established under paragraph 4.56, expressed as a percentage, is greater than the notional level of gearing for the licensee (shown as a fixed input value on the Inputs sheet of the PCFM) then the positive benefit test set

Regulatory Year t-2. It will not therefore have been updated in respect of information reported by the licensee during Regulatory Year t-1. However, the annual re-performance of the determination for preceding years will ensure that finalised figures are subsequently taken into account.

out below will be performed. If the calculated gearing ratio is lower than the notional level of gearing, then the positive benefit test is not performed and the value of TGIE for Regulatory Year t-2 will be determined to be zero.

Positive benefit test

4.58 Ofgem will subtract the modelled figure for tax-deductible interest payable by the licensee in Regulatory Year t-2 (see paragraph 4.50(i)) from the licensee's reported figure for tax deductible net interest paid during Regulatory Year t-2 (see paragraphs 4.52(ii) and 4.53). For the purpose of this calculation, amounts of interest payable are treated as positive numbers.

4.59 If the result of the calculation set out in paragraph 4.58 is a positive value, demonstrating a positive benefit, then a tax clawback adjustment is applicable. In this case Ofgem will multiply the positive value by the corporation tax rate for Regulatory Year t-2, being the rate held in the PCFM as a fixed input value. The result of this calculation will be determined to be the revised value of TGIE for Regulatory Year t-2 in 2012/13 prices. The functionality of the PCFM processes this positive value as a tax liability allowance reduction and/or addition to the licensee's regulatory tax losses balance (see paragraph 4.11).

4.60 If the result of the calculation set out in paragraph 4.58 is zero or a negative value, then no positive benefit has been demonstrated and no tax clawback adjustment is applicable. In this case, the value of TGIE for Regulatory Year t-2 will be determined to be zero.

4.61 TGIE can only be zero or positive; the functionality of the PCFM will produce a negative revenue adjustment in relation to a positive TGIE value.

Reperformance of TGIE determinations

4.62 Ofgem will reperform the determination of TGIE values for Regulatory Years prior to Regulatory Year t-2 to take account of:

- updated information reported by the licensee under the normal cost reporting information cycle;
- any restatements of cost information required under any provision of the licence; and
- any changes to the values referred to in paragraph 4.49 as a result of an Annual Iteration Process.

Interaction with unutilised regulatory tax losses

4.63 If for any Regulatory Year a tax clawback adjustment is applicable to the licensee but the licensee has no modelled profits subject to tax, then the TGIE value calculated under paragraph 4.59 is grossed up with reference to the corporation tax rate and added to the regulatory tax losses balance for the licensee. This is carried

out automatically by functionality within the PCFM. This regulatory tax losses balance will be utilised against future taxable profit as set out in section 4 below.

Direction of TGIE values

4.64 The Authority will direct revised TGIE values in respect of Regulatory Year t-2 and where appropriate earlier Regulatory Years, by 30 November in Regulatory Year t-1, having given the licensee at least 14 days' notice of the values that it proposes to direct.

4.65 If, for any reason, net debt or tax deductible interest figures submitted by the licensee or the RAV used in the PCFM or modelled interest costs that have been used in determining TGIE values are subject to amendment, Ofgem will follow the procedure in the next paragraph to determine revisions to the TGIE values concerned for use in the next Annual Iteration Process.

4.66 Ofgem will re-perform the gearing level test and, if applicable, the positive tax benefit test, to determine any revisions to the TGIE value(s) for the Regulatory Year(s) to which the amended figures relate. For this purpose Ofgem will use a copy of the PCFM in its state following the last completed Annual Iteration Process to obtain an updated RAV value and modelled figure for tax deductible interest payable by the licensee.

4.67 If a revised TGIE value is directed for a Regulatory Year earlier than Regulatory Year t-2, any resultant changes to recalculated base revenue figures for years earlier than Regulatory Year t-2 calculated under the Annual Iteration Process will, subject to a Time Value of Money Adjustment, be brought forward and reflected in the calculation of the term MOD to be directed for Regulatory Year t. For the avoidance of doubt, such a revision will not have any retrospective effect on a previously directed value of the term MOD.

4.68 The procedure for the Authority's direction of revised TGIE values is set out in Part D of CRC 3C.

Section 4 - Processing of revised PCFM Variable Values under the Annual Iteration Process

TTE and TGIE values

4.69 Subject to paragraph 4.73, a positive TTE value will increase the recalculated base revenue figure for the Regulatory Year concerned by the same amount.

4.70 Subject to paragraph 4.73, a negative TTE value will decrease the recalculated base revenue figure for the Regulatory Year concerned by the equivalent amount.

4.71 Subject to paragraph 4.73, a positive TGIE value will decrease the recalculated base revenue figure for the Regulatory Year concerned by:

- the amount of the value¹⁷; and
- a 'tax allowance on tax allowance' factor calculated by functionality within the PCFM (see paragraph 4.6).

4.72 As noted at paragraph 4.61, TGIE values can only be zero or positive.

4.73 If there is any unutilised regulatory tax losses balance for the licensee, any change to recalculated base revenue under paragraph 4.69, 4.70 or 4.71 will be partially or fully abated to take account of that balance and the regulatory tax losses balance held within the PCFM will be updated accordingly.

4.74 For the avoidance of doubt, regulatory tax losses are not carried back and offset against tax liability allowances for Regulatory Years earlier than the Regulatory Year to which the regulatory tax loss concerned is attributable.

¹⁷ Subject to a price base adjustment factor applied under the PCFM functionality (see paragraph 1.5 in chapter 1).

5. Corporate debt allowed percentage cost - financial adjustment methodology

Section 1 - Overview

5.1 The licensee's Opening Base Revenue Allowances include amounts to cover the efficient cost of raising finance for the distribution business from external sources. This is commonly referred to as the 'cost of capital'. Cost of capital allowances are calculated as a percentage return on the licensee's Regulatory Asset Value (RAV). The percentage represents Ofgem's estimate of the weighted average cost of capital (WACC)¹⁸ for the distribution business. The Vanilla WACC is determined using a pre-tax allowed cost of corporate debt percentage, a post-tax real cost of equity percentage and a notional gearing percentage weighting.

5.2 Under the RII0-ED1 price control, the cost of equity and notional gearing percentages are fixed for the whole of the Price Control Period. However, the corporate debt cost percentage is updated on an annual basis with reference to a trailing average index of debt costs. The update is effected through the Annual Iteration Process.

5.3 The basis for updating the cost of debt index percentage value by revising PCFM Variable Values for the licensee's allowed percentage cost of corporate debt ('CDE' values) is established in CRC 3C (Specified financial adjustments). CRC 3C requires revised CDE values to be determined in accordance with the methodology in this chapter.

Section 2 - Methodology for determining revised PCFM Variable Values for the cost of corporate debt

5.4 The ED1 Price Control Financial Model (PCFM) in its state as at 1 April 2015 includes opening CDE values for the licensee for every Regulatory Year of the Price Control Period.

5.5 Revised CDE values will be determined by Ofgem using the pounds sterling indices of bonds issued by non-financial institutions that have a remaining maturity of 10 or more years contained in the Markit iBoxx® database of bond market data.

5.6 Revised CDE values for Regulatory Year t and later Regulatory Years will be determined in accordance with the methodology set out below and directed in respect of each Annual Iteration Process.

¹⁸ see Glossary

5.7 The steps to be followed for determining revised CDE values are:

Step 1

Establish the trading days period¹⁹ to be used in relation to the particular Annual Iteration Process:

Annual Iteration Process taking place not later than:	Trading days period	Regulatory Year t from which revised EDE value applies
30 November 2015	1 November 2005 to 31 October 2015	2016/17
30 November 2016	1 November 2006 to 31 October 2016	2017/18
30 November 2017	1 November 2007 to 31 October 2017	2018/19
30 November 2018	1 November 2008 to 31 October 2018	2019/20
30 November 2019	1 November 2009 to 31 October 2019	2020/21
30 November 2020	1 November 2010 to 31 October 2020	2021/22
30 November 2021	1 November 2011 to 31 October 2021	2022/23

Step 2

For each day in the trading days period ascertained under Step 1, calculate the average of the annual yield figures from the following two iBoxx Sterling Non-Financial Indices:

- (i). A 10+ index Markit iBoxx series reference: DE000A0JY837; and
- (ii). BBB 10+ index Markit iBoxx series reference: DE000A0JZAH1

¹⁹ Trading days as published in the Markit iBoxx® database

The above indices will be sourced from the Markit data service, to which Ofgem is subscribed. The A 10+ index covers bonds rated "A+", "A", and "A-" according to Markit iBoxx's published methodology and the BBB 10+ index covers bonds rated "BBB+", "BBB", and "BBB-". Each index only produces one annual yield figure for each day. Therefore, the average for each day ("iBoxx") is calculated as:

$$\frac{\text{"A 10+ index" annual yield figure for day} + \text{"BBB 10+ index" annual yield figure for day}}{2}$$

Step 3

For each day in the trading day period ascertained under Step 1, obtain a breakeven inflation figure for 10-year government-issued bonds by applying the following formula:

$$\pi = (1 + i) / (1 + r) - 1$$

where:

- π is the Ofgem imputed breakeven inflation figure.
- i is the 'Yield From British Government Securities, 10 Year Nominal Zero Coupon' – series reference IUDMNZC expressed as a Decimal Percentage; and
- r is the 'Yield From British Government Securities, 10 Year Real Zero Coupon' – series reference IUDMRZC expressed as a decimal percentage.

The above series will be sourced from the statistics page on the Bank of England's website.²⁰ In the event that the above data series does not include an entry that exactly matches the date from the Markit iBoxx series, the nearest older entry is to be used.

Step 4

For each day in the trading day period ascertained under Step 1, deflate the average of the annual yield figures obtained under Step 2 using the Bank of England's breakeven inflation figure obtained under Step 3, using the following formula:

²⁰ <http://www.bankofengland.co.uk>

$$CoD = (1 + iBoxx) / (1 + \pi) - 1$$

where:

CoD is the daily real average of the annual yield figures;

iBoxx is the average of the annual yield figures obtained under Step 2 expressed as a Decimal Percentage; and

π is the Ofgem imputed breakeven inflation figure obtained under Step 3.

This step converts the nominal bond yields in the iBoxx data to a real cost of debt value.

Step 5

Calculate the arithmetic average value of *CoD* across the trading days period ascertained under Step 1.

This average, expressed as a percentage and stated to two decimal places constitutes the revised PCFM Variable Value for the cost of corporate debt (CDE value) for Regulatory year t and subsequent Regulatory Years.

Non-availability of iBoxx or Bank of England data

5.8 If, for any reason, iBoxx data or Bank of England data is unavailable for an entire trading days period in time to determine revised PCFM Variable Values for the cost of corporate debt for any Annual Iteration Process then, for that Annual Iteration Process only, the trading days period concerned shall be deemed to have ended on the last trading day for which data has been published. If the data concerned is subsequently published, revised PCFM Variable Values for the affected Regulatory Years will be directed.

5.9 If, for any reason, the iBoxx or Bank of England series identified above ceases to be published, or if there is a material change in the basis of those indices, Ofgem will consult on alternatives, as well as on any reconciliation that may need to be undertaken between the above series and any replacements.

Section 3 - Use of revised PCFM Variable Values in the Annual Iteration Process

5.10 The Authority will direct revised CDE values for Regulatory Year t and subsequent Regulatory Years by no later than 30 November in each Regulatory Year t-1 in accordance with Part D of CRC 3C. Notice of proposed revised values will be

given to the licensee at least 14 days before the date of the direction. Ofgem will provide the licensee with a copy of the spreadsheet used to calculate revised CDE values at the same time as giving the notice.

5.11 PCFM Variable Values for the cost of corporate debt will be directed together with all other types of PCFM Variable Value. Further information on the process is given in chapters 1 and 2.

5.12 The data and spreadsheet used to calculate revised CDE values will be published on the Ofgem Website by 30 November in each Regulatory Year.

6. Totex Incentive Mechanism – financial adjustment methodology

Section 1 - Totex Incentive Mechanism

6.1 The term Totex Incentive Mechanism means the incentive mechanism described in this section. The term Totex Incentive Mechanism Adjustment means an adjustment to the Totex figure used in the fast/slow money modelling of recalculated base revenue figures under the Annual Iteration Process.

6.2 The licensee's Opening Base Revenue Allowances will have been modelled on the basis that actual Totex expenditure levels are expected to equal allowed Totex expenditure levels (allowances). When actual (outturn) expenditure differs from allowances, for any Regulatory Year during the Price Control Period, the Totex Incentive Mechanism (TIM) provides for a defined sharing of the incremental amount (whether an overspend or under spend) between consumers and the licensee.

6.3 The ED1 Price Control Financial Model (PCFM) contains values for both actual Totex expenditure and allowed Totex expenditure levels that, as mentioned above, are initially equal to each other. Both the actual and allowed expenditure values contained in the PCFM can be varied for the purposes of applying the TIM through the Annual Iteration Process.

Actual Totex expenditure

6.4 Actual Totex expenditure is divided into seven subdivisions to facilitate varying tax pool treatments under the Annual Iteration Process calculations (see Table 6.2). Before making any change to the categories of costs included in each subdivision through the operation of standard condition 46 (Regulatory Instructions and Guidance) of the electricity distribution standard licence conditions, as part of the consultation process under Part C of that condition the Authority will consult with the licensee on whether, if such a change were made, it would also be appropriate to make changes to the financial treatment of such cost category under the Annual Iteration Process.

6.5 This chapter sets out the process by which the actual Totex expenditure values in the PCFM can be revised. It also describes the way in which revised figures for Totex flow into the calculation of the term MOD_t .

6.6 CRC 3B (Determination of PCFM Variable Values relating to actual Totex expenditure for Totex Incentive Mechanism Adjustments) provides for the Authority to determine revised PCFM Variable Values for the licensee relating to actual Totex expenditure levels. It also sets out the procedures for the direction of those values so that they can be used for the Annual Iteration Process.

Allowed Totex expenditure

6.7 The procedures for determining and directing revised PCFM Variable Values relating to allowed Totex expenditure levels are covered in the chapters of this handbook shown in Table 6.1 below:

Table 6.1 – Charge Restriction Conditions with provisions to revise PCFM Variable Values relating to allowed Totex expenditure levels

Charge Restriction Condition	PCFM Variable Value	Relating to	Handbook chapter
CRC 3F	UCHVP	Uncertain Costs High Value Projects	7
	UCEPS	Uncertain Costs Enhanced Physical Site Security	
	UCSSW	Uncertain Costs Specified Street Works	
CRC 3E	SMAE	Smart Meter Roll-out Costs	8
CRC 3G	LRRC	Load Related Expenditure	9
CRC 3J	VAA	Visual Amenity (undergrounding)	10
CRC 3H	WSCC	Worst Served Customers	11
CRC 3D	IRM	Innovation Roll-out	12
CRC 3K ²¹	RE	Rail Electrification	12A

Description of the Totex Incentive Mechanism (TIM)

6.8 The TIM applies adjustments to the Totex figure used in the fast/slow money modelling of recalculated base revenue figures under the Annual Iteration Process. The adjustments reflect the amount of under or over expenditure by the licensee against Totex allowances and the relevant Totex Incentive Strength Rate (TISR) for the licensee. The TISR is a percentage figure specified in CRC 3B. It represents the post-tax percentage that the licensee bears in respect of an overspend against allowances or retains in respect of an under spend against allowances. The adjustment that is made to the Totex figures is the Funding Adjustment Rate (often called the 'sharing factor') which is calculated as $(1 - \text{TISR})$. Applying the Funding Adjustment Rate to the over (or under spend) gives the amount that is added to (or subtracted from) the Totex allowances that were used to calculate Opening Base Revenue Allowances.

²¹ Applicable to WPD group licensees only – see paragraph 12A.1 of chapter 12A.

6.9 The TIM uses the licensee’s actual Totex expenditure values for Regulatory Year t-2, reported to Ofgem in accordance with Regulatory Instructions and Guidance (RIGs). It adjusts allowed revenue via the MOD term with adjustments to MOD in year t relating to performance in year t-2. The incentive mechanism therefore operates with a two year lag.

6.10 Totex, once ascertained under the TIM, is apportioned using the Totex Capitalisation Rate for the licensee as:

- Fast Money – flowing directly to the recalculated base revenue figure for the Regulatory Year to which the allowed expenditure relates; and
- Slow Money - additions to the licensee’s RAV in the Regulatory Year to which the allowed expenditure relates; the return on RAV and depreciation flows to the recalculated base revenue figure for the Regulatory year.

6.11 The Totex Capitalisation Rate for the licensee is specified at Appendix 1 to CRC 3B and is a fixed input value for the licensee in the PCFM. The rate is fixed for the Price Control Period.

6.12 Under the Annual Iteration Process, the effects of this modelling treatment (including any ancillary effects such as the impact on tax allowances) are reflected in the value of the term MOD_t .

Totex Incentive Mechanism - illustrative examples

6.13 Simplified, illustrative examples of the calculation approach are set out below:

Opening position:

allowed Totex expenditure:	110
assumed actual Totex expenditure:	110
over/under-spend:	nil
Totex amount for Fast/Slow Money treatment	110

Outturn position – scenario 1:

allowed Totex expenditure:	110
actual Totex expenditure	90
under spend:	20
incentive strength say 70% (or 0.7)	
Totex adjustment (1 - 0.7) X 20	6
Totex amount for Fast/Slow Money treatment	
110 – 6	104

Outturn position – scenario 2:

allowed Totex expenditure:	110
actual Totex expenditure	120
overspend:	10
incentive strength say 70% (or 0.7)	
Totex adjustment $(1 - 0.7) \times 10$	3
Totex amount for Fast/Slow Money treatment $110 + 3$	113

6.14 The reduced Totex amount for fast/slow money treatment in scenario 1 represents a clawback of part of the under spend achieved by the licensee to benefit consumers. The increased Totex amount for fast/slow money treatment in scenario 2 represents a reimbursement of part of the overspend incurred by the licensee.

Application of the TIM under the Annual Iteration Process

6.15 Under the Annual Iteration Process, Ofgem will revise the opening values for actual Totex expenditure contained in the PCFM using the methodology set out in this chapter to reflect outturn values (in 2012/13 prices) reported annually by the licensee in accordance with the RIGs. The normal revision cycle will be:-

Regulatory Year t-2:	Totex expenditure incurred.
Regulatory Year t-1:	Outturn expenditure levels reported to Ofgem in accordance with the RIGs.
Regulatory Year t-1:	31 October – cut off date for data relating to actual Totex expenditure levels to be taken into account in determination of revised PCFM Variable Values.
Regulatory Year t-1:	Authority gives licensee at least 14 days’ notice of proposed revisions to PCFM Variable Values.
Regulatory Year t-1:	Revised PCFM Variable Values for actual Totex expenditure determined and directed by the Authority by 30 November or as soon as reasonably practicable thereafter.
	Note that revised PCFM Variable Values for categories of allowed Totex expenditure will also have been determined/directed by 30 November where that is required by relevant Charge Restriction Conditions and associated chapters in this handbook (see Table 6.1).
Regulatory Year t-1:	Value for MOD_t directed by the Authority by 30 November.
Regulatory Year t:	Value for MOD_t effective in formula for licensee’s Allowed Distribution Network Revenue.

6.16 Allowed Totex expenditure levels will be revised in accordance with the provisions of applicable Charge Restriction Conditions and the associated methodologies in this handbook. In instances where allowed Totex expenditure levels are revised for Regulatory Year t-1 or later, the PCFM will automatically update expected actual Totex expenditure levels to equivalent amounts for those years. This is consistent with the modelling rationale described in paragraph 2 of this chapter.

6.17 It should be noted that:

- each Annual Iteration Process reruns the TIM calculations for each Regulatory Year of the Price Control Period up to Regulatory Year t-2 (for later years the TIM is neutral – see paragraph 6.16);
- the outstanding effect of those calculations is reflected in the value of MOD_t ; and
- the PCFM works in a 2012/13 price base and applies a Time Value of Money Adjustment when the revision of a PCFM Variable Value for a particular Regulatory Year is reflected in the value of the term MOD for a later Regulatory Year.

Total expenditure (Totex)

6.18 In summary Totex consists of all expenditure by the licensee with the exception of:

- costs relating to De Minimis Business activities as defined in Standard Condition 29 (Restriction of activity and financial ring-fencing of the Distribution Business) of the licence;
- costs relating to Directly Remunerated Services;
- pension deficit repair payments relating to the Pension Scheme Established Deficit and all post 1 April 2004 unfunded early retirement deficiency costs (ERDC);
- the non-cash element of current service pension costs charged to the income statement in accordance with accounting standards;
- statutory or regulatory depreciation and amortisation;
- profit margins from related parties (except where permitted);
- costs relating to rebranding a company's assets or vehicles following a change of trading name or logo;
- fines and penalties incurred by the licensee (including all tax penalties, fines and interest) except if Traffic Management Act penalty costs can be shown to be efficient;
- compensation payments made in relation to standards of performance;
- bad debt costs and recoveries (which are subject to separate review);
- costs relating to the network innovation allowance and network innovation competition;
- costs reported other than on a normal accruals basis;
- costs relating to pass-through items; and
- interest, other financing and corporation tax costs.

6.19 Further details on the reporting of expenditure items that are eligible for Totex treatment are given in the Regulatory instructions and guidance (RIGs) referred to in Standard Condition 46 (Regulatory instructions and guidance) of the licence.

6.20 It should be noted that CRC 5C (Directly Remunerated Services) and CRC 5F (Treatment of income from recovery in respect of Relevant Theft of Electricity) provide for the licensee to deduct amounts from its reported totals for Actual controllable opex expenditure (ACO values – see Table 6.2 below) for the purpose of sharing income specified in those conditions with consumers via the TIM.

Section 2 - Determination of PCFM Variable Value revisions for actual Totex expenditure

6.21 Subject to paragraph 3B.17 of CRC 3B, the Authority will, by 30 November in each Regulatory Year t-1, determine that the PCFM Variable Values for Regulatory Year t-2, shown in the first column of Table 6.2 below, should be revised to match the equivalent actual expenditure values (after deflation to 2012/13 prices) reported by the licensee in accordance with the RIGs.

6.22 In accordance with the processes set out in the licence and this handbook, the Authority can determine and direct revised PCFM Variable Values for actual Totex expenditure for Regulatory Years in the Price Control Period earlier than Regulatory Year t-2 for use in any Annual Iteration Process, but only where necessary to address a restatement of, or correction to, price control cost information submitted by the licensee.

Table 6.2 – PCFM Variable Values for actual Totex

PCFM Variable Value	Totex subdivision
ALC	Actual load-related capex expenditure
ANLR	Actual non-load-related capex expenditure – asset replacement
ANLO	Actual non-load-related capex - other
AFE	Actual faults expenditure
ARP	Actual 100% 'revenue pool' expenditure
ACO	Actual controllable opex expenditure
TRE	Actual tree cutting expenditure

6.23 Each of the terms set out in column 2 of Table 6.2 means the value shown against that term name in the licensee's completed annual cost reporting return for the relevant Regulatory Year submitted to Ofgem under the RIGs.

Section 3 - Notification and direction of revised PCFM Variable Values

6.24 The PCFM is a constituent part of CRC 4A (Governance of ED1 Price Control Financial Instruments). It has an input area for each licensee containing both fixed values and variable values. The variable values relating to actual Totex expenditure are shown in the PCFM Variable Values table 6.2 above.

6.25 During each Regulatory Year t-1, the Authority will determine revised PCFM Variable Values for the licensee relating to actual Totex expenditure. Part B of CRC 3B, requires the Authority to give the licensee at least 14 days' notice of any such proposed revisions, to allow for representations or objections. The Authority is required to have due regard to any representations or objections received from the licensee and to give reasons for its decisions in relation to them.

6.26 The Authority is required to direct any PCFM Variable Value revisions by 30 November in Regulatory Year t-1, so the notice of proposed values must be given no later than 15 November in the same year. The Authority will give notice of the proposed values as soon as practicably possible in Regulatory Year t-1.

6.27 Paragraph 3B.17 of CRC 3B says that if, for any reason in any Regulatory Year t-1, the Authority does not make a direction in relation to revised actual Totex values by 30 November, it will direct the value or values concerned as soon as is reasonably practicable.

6.28 The Authority will then carry out the Annual Iteration Process in accordance with CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model) - see Chapter 1.

7. Uncertain costs allowed expenditure – financial adjustment methodology

Section 1 - Overview

7.1 At the outset of the Price Control Period, levels of allowed expenditure for the following categories of uncertain costs were set on a provisional basis because of uncertainties about requirements:

- (a) High Value Project Costs;
- (b) Enhanced Physical Site Security Costs; and
- (c) Specified Street Works Costs.

The licensee's Opening Base Revenue Allowances were modelled using the provisional amounts.

7.2 CRC 3F (Arrangements for the recovery of uncertain costs) sets out the basis on which opening levels of allowed expenditure on uncertain cost activities can be revised through 'relevant adjustments'. It also sets out how the PCFM Variable Value associated with each uncertain cost activity should be revised.

7.3 At the start of the Price Control Period on 1 April 2015, the PCFM Variable Value for the licensee for each uncertain cost activity for each Regulatory Year of the Price Control Period was set to equal the level of allowed expenditure referred to in paragraph 7.1. These were the levels that were used to derive the licensee's Opening Base Revenue Allowances and, in respect of High Value Projects Costs and Enhanced Physical Site Security Costs, they are set out against the licensee's name in the tables contained in Appendices 1 and 2 to CRC 3F. Opening levels of allowed expenditure on Specified Street Works Costs are set at zero. The PCFM Variable Values for the uncertain cost categories can be revised so that they continue to match allowed expenditure levels following any relevant adjustments under the provisions of CRC 3F and this chapter.

7.4 The categories of uncertain cost activities together with their associated PCFM Variable Values are shown in Table 7.1. Under the Annual Iteration Process, allowed expenditure levels for uncertain cost activities represented by PCFM Variable Values, as revised, interact with actual expenditure information so that appropriate Totex Incentive Mechanism Adjustments are reflected in the calculation of values for the term MOD.

Table 7.1 – Uncertain cost activities

Uncertain cost category	PCFM Variable Value name	Charge Restriction Condition
High Value Project Costs	UCHVP	CRC 3F
Enhanced Physical Site Security Costs	UCEPS	
Specified Street Works Costs	UCSSW	

7.5 PCFM Variable Values relating to uncertain cost activities are stated in 2012/13 prices, consistent with the price base used in the ED1 Price Control Financial Model (PCFM) and the values for the term MOD. The allocation of allowed expenditure for uncertain cost activities into the Totex sub-divisions referred to in Table 6.2 in Chapter 6 is handled automatically under the Annual Iteration Process using fixed attribution rates contained in the PCFM.

7.6 CRC 3F provides for:

- the licensee to propose revisions to levels of allowed expenditure (relevant adjustments), but only during an application window specified in CRC 3F (see paragraph 7.8);
- the determination of relevant adjustments by the Authority; and
- the deeming of relevant adjustments in circumstances specified in CRC 3F, in respect of each uncertain cost activity.

7.7 CRC 3F also provides for the Authority to propose relevant adjustments, in relation to High Value Project Costs during a notice window after the end of the Price Control Period, specified in CRC 3F (see paragraph 7.9).

7.8 The application window during which the licensee can propose relevant adjustments runs from 1 May 2019 to 31 May 2019.

7.9 The notice window during which the Authority can give notice of proposed relevant adjustments in respect of High Value Project Costs runs from 1 December 2023 to 31 December 2023. This window is after the end of the Price Control Period whose last day is 31 March 2023.

7.10 CRC 3F and this chapter set out the basis on which relevant adjustments can be proposed by the licensee and the Authority. However, this chapter only deals with:

- (a) determinations with respect to relevant adjustments proposed by the licensee; and
- (b) the determination and direction of revised PCFM Variable Values to give effect to determinations made under subparagraph (a).

7.11 Relevant adjustments proposed by the Authority will be addressed through adjustment mechanisms to be included in the RIIO-ED2 price control arrangements for the licensee and are not dealt with further under this chapter.

Determinations and directions with respect to relevant adjustments proposed by the licensee

7.12 The Authority will determine the relevant adjustments to the licensee's levels of allowed expenditure with respect to proposals made by the licensee within four months of the close of the application window referred to in paragraphs 7.8 – ie by 30 September 2019 unless the timetable is extended by the Authority in the circumstances and to the extent prescribed in CRC 3F. The determination of relevant adjustments will be made in accordance with the methodologies set out in sections 2, 3 and 4, as applicable, of this chapter.

7.13 If the Authority has not determined a relevant adjustment in relation to a proposal duly made by the licensee within four months of the close of the application window, and the proposal has not been withdrawn, then the relevant adjustment will be deemed to have been made.

7.14 CRC 3F also provides for the associated PCFM Variable Values to be revised for appropriate Regulatory Years in the Price Control Period so that relevant adjustments are reflected in the recalculation of base revenue figures for the licensee under the Annual Iteration Process for the ED1 Price Control Financial Model. It also sets out the procedures for the direction of revised PCFM Variable Values by the Authority.

General principles applicable to uncertain cost adjustment mechanisms

7.15 CRC 3F states that a proposed relevant adjustment to the level of allowed expenditure on an uncertain cost activity must:

- be based on information about the actual or forecast level of efficient expenditure on the uncertain cost activity that was either unavailable or did not qualify for inclusion when the licensee's Opening Base Revenue Allowance was derived;
- take account of any relevant adjustments previously determined under CRC 3F;
- constitute a material amount as specified for the licensee in Appendix 1, 2 or 3 (as the case may be) of CRC 3F;
- relate to costs incurred or expected to be incurred after 1 April 2015; and

- constitute an adjustment to allowed expenditure that (excluding any Time Value of Money Adjustment) cannot be made under the provisions of any other condition of the licence.

7.16 The stipulation that proposals must take account of any previously determined relevant adjustments is intended to ensure that relevant costs are not ignored on the one hand, or double counted on the other.

7.17 The PCFM Variable Value for any particular Regulatory Year, as revised represents the total amount of allowed Totex expenditure (in 2012/13 prices) for the uncertain cost activity concerned for that Regulatory Year.

Section 2 – Methodology for determining relevant adjustments in respect of High Value Project Costs

The uncertainty mechanism for High Value Project Costs

7.18 For the purposes of CRC 3F and this chapter, the term High Value Project Costs means a scheme of works and the associated costs incurred, or expected to be incurred, by the licensee on any investment project with respect to its Distribution System that is reasonably forecast to cost the licensee £25 million or more (in 2012/13 prices) during the Price Control Period, and for which clear outputs, a needs case, and a statement of costs have been provided and in respect of which there is no other mechanism for the adjustment of allowed expenditure levels during the Price Control Period.

7.19 Some High Value Project Costs were taken into account in the calculation of the licensee's Opening Base Revenue Allowances. The uncertainty mechanism does not provide for any further adjustment to the licensee's allowed expenditure in respect of these projects, but they remain relevant in two respects:

- (i) Allowed expenditure (included in Opening Base Revenue Allowances) and actual efficient expenditure are taken into account in assessing whether the overall materiality threshold has been reached.
- (ii) The Authority will review the licensee's achievement of outputs associated with High Value Project Costs when determining any relevant adjustment proposed by the licensee under CRC 3F.

Overall materiality threshold

7.20 An overall materiality threshold applies in respect of relevant adjustments for High Value Project Costs. The materiality threshold for the licensee, in 2012/13 prices, is specified in the table entitled 'Opening level of allowed expenditure for High Value Project Costs and the material amount for each licensee' in Appendix 1 to CRC 3F.

7.21 The amount to be tested against the materiality threshold in respect of a proposed increase in allowed expenditure levels will be determined in 2012/13 prices as:

- (i) the total of the licensee's actual and forecast efficient expenditure on:
- High Value Project Costs included in the calculation of the licensee's Opening Base Revenue Allowances (if any); and
 - additional High Value Project Costs included in any proposal by the licensee for a relevant adjustment,
- for all Regulatory Years in the Price Control Period,
- less**
- (ii) the total amount of allowed expenditure included in the calculation of the licensee's Opening Base Revenue Allowances in respect of High Value Project Costs,
- for all Regulatory Years in the Price Control Period.

7.22 If the materiality threshold is passed, it is not further taken into account in the determination of relevant adjustments to allowed expenditure levels. If the materiality threshold is not passed, then any relevant adjustment proposal will be rejected.

7.23 If the materiality threshold is not passed the 'Strategy decision for the RIIO-ED1 electricity distribution price control – Uncertainty mechanisms' specifies how costs will be treated (eg whether they are subject to the TIM and logging up).²²

Determination of a relevant adjustment proposed by the licensee

7.24 If the Authority receives Notice of a proposed relevant adjustment from the licensee in respect of High Value Project Costs it will take the steps set out below to determine whether the proposed adjustment should be confirmed, rejected or amended.

Determination steps

- (i) The Authority will check whether the Notice has been received during the application window referred to in paragraph 7.8. If the Notice has been received before 1 May 2019 the Authority will notify the licensee that the Notice has been submitted too early and should be resubmitted during May 2019. If the Notice has been received after 31 May 2019 the Authority will notify the licensee that the Notice has

²² <https://www.ofgem.gov.uk/ofgem-publications/47070/riioed1decuncertaintymechanisms.pdf>

been received too late and that a relevant adjustment will not be determined.

- (ii) The Authority will check in respect of each of the projects included in the relevant adjustment proposal whether:
 - a. costs incurred, or expected to be incurred, are reasonably forecast to cost the licensee £25 million or more;
 - b. each of the requirements set out in paragraphs 3F.8 and 3F.9 of CRC 3F have been met (except for the requirement in respect of a material amount – see step (iv));
 - c. the proposal by the licensee represents an efficient level of expenditure;
 - d. a need for the project to be carried out has been established; and
 - e. measurable outputs for the project have been identified.

- (iii) The Authority will decide whether it requires any further information from the licensee in order to make a determination and, if it decides that further information is required, it will give Notice of that requirement to the licensee as soon as reasonably practicable and will allow such time for provision of that information as appropriate, taking account of:
 - a. the amount of time that the licensee will reasonably require to compile the information;
 - b. the four month period for determinations referred to in paragraph 3F.12 of CRC 3F; and
 - c. the need to consult the licensee on its proposed determination.

It should be noted that the issuing of a Notice as described above does not preclude the Authority from making further information, analysis and reformatting requests in respect of the proposal.

- (iv) The Authority will check whether the overall materiality threshold has been passed in accordance with paragraphs 7.20 and 7.21. If it has not, the proposed relevant adjustment will be rejected.

- (v) The Authority will consider whether the outputs associated with the High Value Project Costs included in the calculation of Opening Base Revenue Allowances have been or will be achieved.

- (vi) Having carried out steps (i) to (v) above, the Authority will provisionally determine whether to:
 - a. reject the relevant adjustment proposed by the licensee;
 - b. confirm the relevant adjustment proposed by the licensee; or
 - c. amend the relevant adjustment proposed by the licensee.

If the Authority decides to amend or confirm the licensee's proposal it will, in respect of each of the projects included in the relevant adjustment proposal, provisionally determine the adjustments to

allowed expenditure that should be made and the Regulatory Years to which those adjustments should be applied.

If the Authority decides to reject the licensee's proposal it will provisionally determine that no adjustments to allowed expenditure should be made.

- (vii) The Authority will consult the licensee on its provisional determination, allowing the licensee at least 28 days in which to respond.
- (viii) The Authority will consider any consultation responses from the licensee and will then make a relevant adjustment determination.

7.25 A determination by the Authority that confirms or amends a relevant adjustment proposed by the licensee in respect of High Value Project Costs will specify:

- (a) the Regulatory Years to which the determination applies; and
- (b) the revised total amounts of allowed Totex expenditure (in 2012/13 prices) for each of the Regulatory Years.

7.26 If the Authority receives Notice of a proposed relevant adjustment from the licensee in respect of High Value Project Costs and does not make an relevant adjustment determination within the relevant time limit prescribed in CRC 3F, and the proposal has not been withdrawn, then paragraph 3F.19 of CRC 3F stipulates that the adjustments will be deemed to have been made.

7.27 The Authority will apply any relevant adjustment determined or deemed to have been made in the determination of revised UCHVP values under part 5 of this chapter.

Section 3 – Methodology for determining relevant adjustments in respect of Enhanced Physical Site Security Costs

The uncertainty mechanism for Enhanced Physical Site Security Costs

7.28 The term Enhanced Physical Site Security Costs means costs incurred, or expected to be incurred, by the licensee for the purposes of implementing any formal recommendation or requirement of the Secretary of State to enhance the physical security of any of the sites that form part of the licensee's Distribution System as may be further clarified in the Regulatory instructions and Guidance (RIGs). This definition is set out in CRC 3F.

7.29 Requirements for Enhanced Physical Site Security related to some sites were taken into account in the calculation of the licensee's Opening Base Revenue Allowances. The uncertainty mechanism only provides for adjustments to the licensee's allowed expenditure in the Price Control Period in respect of sites not included as part of ex ante allowances.

Overall materiality threshold

7.30 An overall materiality threshold applies in respect of relevant adjustments for Enhanced Physical Site Security Costs. The materiality threshold for the licensee, in 2012/13 prices, is specified in the table in Appendix 2 to CRC 3F.

7.31 If the materiality threshold is passed, it is not further taken into account in the determination of relevant adjustments to allowed expenditure levels. If the materiality threshold is not passed, then any relevant adjustment proposal will be rejected. However, in that case, costs reported by the licensee in accordance with the RIGs will be deferred up for consideration in respect of the RIIO-ED2 price control arrangements.

7.32 If the materiality threshold is not passed the 'Strategy decision for the RIIO-ED1 electricity distribution price control – Uncertainty mechanisms' specifies how costs will be treated (eg whether they are subject to the TIM and logging up).²³

Determination of a relevant adjustment proposed by the licensee

7.33 If the Authority receives Notice of a proposed relevant adjustment from the licensee in respect of Enhanced Physical Site Security Costs it will take the steps set out below to determine whether the proposed adjustment should be confirmed, rejected or amended.

Determination steps

- (i) The Authority will check whether the Notice has been received during the application window referred to in paragraph 7.8. If the Notice has been received before 1 May 2019 the Authority will notify the licensee that the Notice has been submitted too early and should be resubmitted during May 2019. If the Notice has been received after 31 May 2019 the Authority will notify the licensee that the Notice has been received too late and that a relevant adjustment will not be determined.
- (ii) The Authority will check in respect of each of the sites included in the relevant adjustment proposal whether:
 - a. each of the requirements set out in paragraphs 3F.8 and 3F.9 of CRC 3F has been met (except for the requirement in respect of a material amount – see step (iv));
 - b. works that have been carried out, or that are to be carried out, meet the security requirements specified in the relevant recommendation or requirement of the Secretary of State; and

²³ <https://www.ofgem.gov.uk/ofgem-publications/47070/riioed1decuncertaintymechanisms.pdf>

- c. works that have been carried out, or that are to be carried out, represent an efficient level of expenditure.

In making the checks at points 'a.', 'b.' and 'c.', the Authority will take into account the results of any audit of the licensee's Enhanced Physical Site Security activity and the results of any benchmarking review that the Authority has carried out.

- (iii) The Authority will decide whether it requires any further information from the licensee in order to make a determination and, if it decides that further information is required it will give Notice of that requirement to the licensee as soon as reasonably practicable and will allow such time for provision of that information as appropriate, taking account of:
 - a. the amount of time that the licensee will reasonably require to compile the information;
 - b. the four month period for determinations referred to in paragraph 3F.12 of CRC 3F; and
 - c. the need to consult the licensee on its proposed determination.

It should be noted that the issuing of a Notice as described above does not preclude the Authority from making further information, analysis and reformatting requests in respect of the proposal.

- (iv) The Authority will check whether the overall materiality threshold has been passed in accordance with paragraph 7.30. If it has not, the proposed relevant adjustment will be rejected.
- (v) Having carried out steps (i) to (iv) above, the Authority will provisionally determine whether to:
 - a. reject the relevant adjustment proposed by the licensee;
 - b. confirm the relevant adjustment proposed by the licensee; or
 - c. amend the relevant adjustment proposed by the licensee.

If the Authority decides to amend or confirm the licensee's proposal it will, in respect of each of the sites included in the relevant adjustment proposal, provisionally determine the adjustments to allowed expenditure that should be made and the Regulatory Years to which those adjustments should be applied.

If the Authority decides to reject the licensee's proposal it will provisionally determine that no adjustments to allowed expenditure should be made.

- (vi) The Authority will consult the licensee on its provisional determination, allowing the licensee at least 28 days in which to respond.
- (vii) The Authority will consider any consultation responses from the licensee and will then make a relevant adjustment determination.

7.34 A determination by the Authority that confirms or amends a relevant adjustment proposed by the licensee in respect of Enhanced Physical Site Security Costs will specify:

- (a) the Regulatory Years to which the determination applies; and
- (b) the revised total amounts of allowed expenditure (in 2012/13 prices) for each of the Regulatory Years.

7.35 If the Authority receives Notice of a proposed relevant adjustment from the licensee in respect of Enhanced Physical Site Security Costs and does not make a relevant adjustment determination within the relevant time limit prescribed in CRC 3F, and the proposal has not been withdrawn, then paragraph 3F.19 of CRC 3F stipulates that the adjustments will be deemed to have been made.

7.36 The Authority will apply any relevant adjustment determined or deemed to have been made in the determination of revised UCEPS values under part 5 of this chapter.

Section 4 – Methodology for determining relevant adjustments in respect of Specified Street Works Costs

The uncertainty mechanism for Specified Street Works Costs

7.37 The term Specified Street Works Costs means costs incurred, or expected to be incurred, by the licensee in complying with obligations or requirements arising under any order or regulations made under Part 3 of the Traffic Management Act 2004 (or, in Scotland, the Transport (Scotland) Act 2005) that impose a permit scheme and comprise:

- (a) permit fee costs;
- (b) one-off set up costs;
- (c) additional administrative costs arising from the introduction of permit schemes; and
- (d) additional costs arising from the introduction of permit conditions,

as further clarified in the RIGs. This definition is set out in CRC 3F.

7.38 The uncertainty mechanism provides for relevant adjustments in respect of efficient costs that were not included in the calculation of the licensee's Opening Base Revenue Allowances.

Overall materiality threshold

7.39 An overall materiality threshold applies in respect of relevant adjustments for Specified Street Works Costs. The materiality threshold for the licensee, in 2012/13 prices, is specified in the table in Appendix 3 to CRC 3F.

7.40 If the materiality threshold is passed, it is not taken further into account in the determination of relevant adjustments to allowed expenditure levels. If the materiality threshold is not passed, then any relevant adjustment proposal will be rejected. This is without prejudice to any consideration of costs in respect of arrangements for the RIIO-ED2 price control.

7.41 If the materiality threshold is not passed the 'Strategy decision for the RIIO-ED1 electricity distribution price control – Uncertainty mechanisms' specifies how costs will be treated (eg whether they are subject to the TIM and logging up).²⁴

Determination of a relevant adjustment proposed by the licensee

7.42 If the Authority receives Notice of a proposed relevant adjustment from the licensee in respect of Specified Street Works Costs it will take the steps set out below to determine whether the proposed adjustment should be confirmed, rejected or amended.

Determination steps

- (i) The Authority will check whether the Notice has been received during the application window referred to in paragraph 7.8. If the Notice has been received before 1 May 2019 the Authority will notify the licensee that the Notice has been submitted too early and should be resubmitted during May 2019. If the Notice has been received after 31 May 2019 the Authority will notify the licensee that the notice has been received too late and that a relevant adjustment will not be determined.
- (ii) The Authority will check whether
 - a. each of the requirements set out in paragraphs 3F.8 and 3F.9 of CRC 3F has been met (except for the requirement in respect of a material amount – see step (iv));
 - b. the licensee has, or will be able to, provide 12 months' worth of costs data to support its proposal; and
 - c. the proposal by the licensee represents an efficient level of expenditure.
- (iii) The Authority will decide whether it requires any further information from the licensee in order to make a determination and, if it decides that further information is required it will give Notice of that requirement to the licensee as soon as reasonably practicable and will

²⁴ <https://www.ofgem.gov.uk/ofgem-publications/47070/riioed1decuncertaintymechanisms.pdf>

allow such time for provision of that information as appropriately takes account of:

- a. the amount of time that the licensee will reasonably require to compile the information;
- b. the four month period for determinations referred to in paragraph 3F.12 of CRC 3F; and
- c. the need to consult the licensee on its proposed determination.

It should be noted that the issuing of a Notice as described above does not preclude the Authority from making further information, analysis and reformatting requests in respect of the proposal.

- (iv) The Authority will check whether the overall materiality threshold has been passed in accordance with paragraph 7.39. If it has not, the proposed relevant adjustment will be rejected.
- (v) In reviewing the level of permit fee costs included in any relevant adjustment proposal the Authority will take into account:
 - a. the number of permits that the licensee has been or will be required to obtain in respect of works schemes; and
 - b. the costs of permits that the licensee has been or will be required to obtain.
- (vi) In reviewing the level of system set up costs and additional administration costs included in any relevant adjustment proposal, the Authority will take into account the results of any benchmarking or other comparative analysis that it has carried out or commissioned.
- (vii) Having carried out steps (i) to (vi) above, the Authority will provisionally determine whether to:
 - a. reject the relevant adjustment proposed by the licensee;
 - b. confirm the relevant adjustment proposed by the licensee; or
 - c. amend the relevant adjustment proposed by the licensee.

If the Authority decides to amend or confirm the licensee's proposal it will provisionally determine the adjustments to the licensee's allowed expenditure that should be made and the Regulatory Years to which those adjustments should be applied.

If the Authority decides to reject the licensee's proposal it will provisionally determine that no adjustments to allowed expenditure should be made.

- (viii) The Authority will consult the licensee on its provisional determination, allowing the licensee at least 28 days in which to respond.
- (ix) The Authority will consider any consultation responses from the licensee and will then make a relevant adjustment determination.

7.43 A determination by the Authority that confirms or amends a relevant adjustment proposed by the licensee in respect of Specified Street Works Costs will specify:

- (a) the Regulatory Years to which the determination applies; and
- (b) the revised total amounts of allowed Totex expenditure (in 2012/13 prices) for each of the Regulatory Years.

7.44 If the Authority receives Notice of a proposed relevant adjustment from the licensee in respect of Specified Street Works Costs and does not make a relevant adjustment determination within the relevant time limit prescribed in CRC 3F, and the proposal has not been withdrawn, then paragraph 3F.19 of CRC 3F stipulates that the adjustments will be deemed to have been made.

7.45 The Authority will apply any relevant adjustment determined or deemed to have been made in the determination of revised UCSSW values under part 5 of this chapter.

Section 5 – Determination, notification and direction of revised PCFM Variable Values for uncertain cost activities

7.46 CRC 3F specifies that the PCFM Variable Value for the licensee for each uncertain cost activity as at 1 April 2015 (ie before any revisions to PCFM Variable Values have been made) for each Regulatory Year of the Price Control Period will be equal to the level of allowed Totex expenditure that was used in the calculation of the licensee's Opening Base Revenue Allowances. It also specifies that revised PCFM Variable Values relating to uncertain cost activities will be directed by the Authority by 30 November in Regulatory Year 2019/20 (ie by 30 November 2019).

Determination of revised PCFM Variable Values

7.47 On or before 31 October 2019, Ofgem will check to see whether any determinations of relevant adjustments have been made or have been deemed to have been made in respect of

- (a) High Value Project Costs;
- (b) Enhanced Physical Site Security Costs; and
- (c) Specified Street Works Costs,

that change the level of allowed expenditure for the licensee and that have not previously been taken fully into account in the determination of revisions to the associated PCFM Variable Value for the Regulatory Year or Years concerned.

7.48 If any determination of a relevant adjustment has not previously been taken into account, the Authority will determine that the associated PCFM Variable Value (as set out in the next paragraph) for the Regulatory Year or Years concerned is to be revised so that it equals the revised total amount of allowed Totex expenditure (in 2012/13 prices) specified in the relevant adjustment determination.

7.49 The PCFM Variable Values referred to in paragraph 7.48 are:

- (a) UCHVP values in respect of High Value Project Costs;
- (b) UCEPS values in respect of Enhanced Physical Site Security Costs; and
- (c) UCSSW values in respect of Specified Street Works Costs.

Notification and direction of revised PCFM Variable Values

7.50 The Authority will give Notice of any revisions to UCHVP, UCEPS and UCSSW values that it proposes to direct by 15 November in Regulatory Year 2019/20, being at least 14 days before the deadline date of 30 November for the direction of revised PCFM Variable Values. The Notice will confirm that:

- any revised PCFM Variable Value determinations have been made in accordance with Part B of CRC 3F, which cross refers to this chapter of this handbook; and
- the licensee has 14 days from the date of the Notice in which to make any representations concerning the proposed PCFM Variable Value revisions.

7.51 The Authority is required to have due regard to any representations or objections made by the licensee and to give its reasons for any decisions in relation to them.

7.52 The Authority will only direct PCFM Variable Value revisions for uncertain cost activities in accordance with the provisions of CRC 3F. However, the overall direction of PCFM Variable Value revisions in each Regulatory Year t-1 will include a copy of the PCFM Variable Values Table for the licensee showing the state of all PCFM Variable Values including those relating to uncertain cost activities.

Delay in direction of revised PCFM Variable Values

7.53 If the procedures set out in CRC 3F and this chapter call for the Authority to direct revised PCFM Variable Values for one or more uncertain cost categories by 30 November 2019, and the Authority does not make such a direction, then CRC 3F requires that the values concerned should be directed by the Authority as soon as is reasonably practicable, to facilitate the notification and direction of the value of the term MOD_t for the licensee under CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model).

8. Smart Meter Roll-out Costs- financial adjustment methodology

Section 1 - Overview

8.1 A large scale roll-out of smart meters will be carried out by electricity suppliers during the Price Control Period. The licensee will be required to intervene (make "Smart Meter Interventions") in a significant number of Smart Meter Installations where work on Distribution System assets is required to facilitate the fitting of smart meters. The provisions of CRC 3E (Smart Meter Roll-out Costs) and the methodology in this chapter will ensure that the licensee's level of allowed Totex expenditure for Smart Meter Roll-out Costs is commensurate with efficient management of that activity.

8.2 Opening levels of allowed Totex expenditure for Smart Meter Roll-out Costs for each Regulatory Year of the Price Control Period were set on a provisional basis because of uncertainties surrounding the number of Smart Meter Installations that would take place and the number of Smart Meter Installations where the licensee would be required to make a Smart Meter Intervention (see also paragraphs 8.5 and 8.17 below). The licensee's Opening Base Revenue Allowances were modelled using these provisional amounts.

8.3 At the outset of the Price Control Period on 1 April 2015, the PCFM Variable Values associated with Smart Meter Roll-out Costs for the licensee (SMAE values) for each Regulatory Year of the Price Control Period were set to equal the level of allowed Totex expenditure referred to in paragraph 8.2. These were the levels that were used in calculating the licensee's Opening Base Revenue Allowances and they are set out against the licensee's name in Table 1 in Part A of CRC 3E.

8.4 CRC 3E sets out the basis on which levels of allowed expenditure on Smart Meter Roll-out Costs and associated SMAE values are to be revised during the Price Control Period.

8.5 Opening levels of allowed expenditure and SMAE values for Regulatory Years 2021/22 and 2022/23 were set at zero and:

- (a) for Regulatory Year 2021/22 are not subject to revision during the Price Control Period (unless the Authority directs otherwise under paragraph 3E.9 of CRC 3E); and
- (b) for Regulatory Year 2022/23 are subject to revision only in respect of the tapering factor true-up referred to in section 3 below (unless the Authority directs otherwise under paragraph 3E.10 of CRC 3E).

8.6 Levels of allowed expenditure and SMAE values for Regulatory Years from 2015/16 to 2020/21 are to be revised using the formula set out in Part B of CRC 3E. The calculation under the formula uses:

- (a) the total number of Smart Meter Interventions in the licensee's Distribution Services Area (DSA) during Regulatory Year t-2; and
- (b) the licensee's allowed unit cost of Smart Meter Interventions, in 2012/13 price, specified for the licensee in Appendix 1 of CRC 3E (and subject to revision by direction of the Authority under paragraph 3E.8 of CRC 3E).

8.7 Under the Annual Iteration Process, allowed expenditure levels on Smart Meter Roll-out Costs, represented by SMAE values, as revised, interact with actual expenditure information so that appropriate Totex Incentive Mechanism Adjustments are reflected in the calculation of values for the term MOD (see chapter 6).

8.8 In the remainder of this chapter references to the revision of SMAE values are to be read as including revision of the associated allowed expenditure levels.

Section 2 - Determination of revised SMAE values for Regulatory Years 2015/16 to 2021/22

8.9 The formula contained in Part B of CRC 3E is expressed as calculating SMAE values for Regulatory Year t-2 and this is explained in paragraphs 8.10 to 8.12 below.

8.10 The Authority will determine a revised SMAE value for Regulatory Year 2015/16 by applying the number of Smart Meter Interventions the licensee was required to make during Regulatory Year 2015/16 to the formula contained in Part B of CRC 3E. This determination, and the direction of the revised SMAE value for 2015/16 will take place by 30 November 2016 for use in the Annual Iteration Process that will take place by the same date. This Annual Iteration Process will produce the value of the term MOD for Regulatory Year 2017/18 which, under the temporal convention set out in paragraphs 1.8 to 1.10 of chapter 1, is Regulatory year t. Therefore, in the context of this Annual Iteration Process, Regulatory Year 2015/16 is Regulatory year t-2.

8.11 The SMAE value for Regulatory Years 2016/17 to 2020/21 and the expected timetable for the revision of SMAE values and their use in the Annual Iteration Process is set out in Table 8.1 below.

8.12 The SMAE value for Regulatory Year 2021/22 will be zero, unless following consultation with the licensee, the Authority directs that it should be a different value to take account of circumstances unforeseen at ED1 Final Determination.

Table 8.1 – Routine timing for determination and use of revised SMAE values for Regulatory Years 2015/16 to 2020/21

Regulatory Year t-2 during which activity takes place	Revised SMAE value for Regulatory Year t-2 determined by	Reflected in value of MOD for Regulatory Year
2015/16	30 Nov 2016	2017/18
2016/17	30 Nov 2017	2018/19
2017/18	30 Nov 2018	2019/20
2018/19	30 Nov 2019	2020/21
2019/20	30 Nov 2020	2021/22
2020/21	30 Nov 2021	2022/23

8.13 Notwithstanding the routine timings set out in Table 8.1, the Authority may, in respect of any Annual Iteration Process, determine that the SMAE value for a Regulatory Year earlier than Regulatory Year t-2 should be revised, if that is necessary because the licensee has been required to restate the number of Smart Meter Interventions it was required to make in the Regulatory Year concerned. In those circumstances the revision to the SMAE value concerned would again be determined using the formula contained in Part B of CRC 3E, but using the restated Smart Meter Interventions number for the Regulatory Year in question.

Section 3 - Determination of revised SMAE value for Regulatory Year 2022/23

Tapering factor true-up

8.14 Revision of the SMAE value for Regulatory Year 2022/23 gives effect to a true-up mechanism that:

- (a) corrects for any under or over statement of the numbers of Smart Meter Interventions used in the determination of SMAE values for Regulatory Years 2015/16 to 2020/21 under Part B of CRC 3E and section 2 of this chapter; and
- (b) applies a tapering factor that was incorporated to recognise economies of scale and to incentivise the licensee to minimise intervention levels.

8.15 The outcome of the true-up mechanism and its impact on the revised SMAE value for Regulatory Year 2022/23 will be determined using the formula set out in Part C of CRC 3E. The calculation under the formula uses:

- (a) the number of Smart Meter Interventions in each Regulatory Year from 2015/16 to 2020/21;
- (b) the total number of Smart Meter Interventions in the licensee’s DSA in each Regulatory Year from 2015/16 to 2020/21;
- (c) the licensee’s allowed unit cost of Smart Meter Interventions, in 2012/13 price, specified for the licensee in Appendix 1 of CRC 3E (which is subject to revision by direction of the Authority under paragraph 3E.8 of CRC 3E);
- (d) the tapering factors for the licensee that are specified in Table 2 contained in Part C of CRC 3E (which is subject to revision by direction of the Authority under paragraph 3E.10 of CRC 3E); and
- (e) the latest SMAE values directed for Regulatory Years 2015/16 to 2020/21.

8.16 The Authority will determine a revised SMAE value for Regulatory Year 2022/23 by 30 November 2021 for use in the Annual Iteration Process that will take place by 30 November 2021²⁵. This Annual Iteration Process will produce the value of the term MOD for Regulatory Year 2022/23. This timing is set out in Table 8.2 below.

Table 8.2 – Timing for determination and use of a revised SMAE value for Regulatory Year 2022/23

Regulatory Year t-2 during which activity takes place	Revised SMAE value for Regulatory Year 2022/23 determined by	Reflected in value of MOD for Regulatory Year
-	30 Nov 2021	2022/23

8.17 Paragraph 3E.10 of CRC 3E specifies that the Authority can direct that the SMAE value for Regulatory Year 2022/23 is to be revised on a different basis.

Regulatory Years 2021/22 and 2022/23

8.18 It is expected that the roll-out of smart meters by electricity suppliers will be completed by the end of Regulatory Year 2020/21. Consequently there is no routine provision in CRC 3E or this chapter for SMAE values for Regulatory Years 2021/22 and 2022/23 to be revised in respect of Smart Meter Interventions in those years.

²⁵ Note that “SMAE value for Regulatory Year 2022/23” means the SMAE value in the 2022/23 column of the PCFM Variable Values Table, so there is no contradiction in stating that it will be revised by 30 November 2021 (see paragraph 1.10).

However, under paragraph 3E.9 of CRC 3E, the Authority can direct that the SMAE value for Regulatory Year 2021/22 can be a value other than zero.

Section 4 - Notification and direction of revised PCFM Variable Values

8.19 Paragraph 3E.16 of CRC 3E requires the Authority to give the licensee at least 14 days' notice setting out any revisions to SMAE values that it has determined, before directing the revisions. This means that the Authority will give notice to the licensee as shown in column 2 of Table 8.3 below.

Table 8.3 – Expected timings for SMAE value Notices and Directions

Regulatory Year for which SMAE value is being revised	Deadline for Notice of proposed revision to SMAE value	Deadline for direction of revised SMAE value
2015/16	15 Nov 2016	30 Nov 2016
2016/17	15 Nov 2017	30 Nov 2017
2017/18	15 Nov 2018	30 Nov 2018
2018/19	15 Nov 2019	30 Nov 2019
2019/20	15 Nov 2020	30 Nov 2020
2020/21	15 Nov 2021	30 Nov 2021
2021/22	-	-
2022/23	15 Nov 2021	30 Nov 2021

8.20 The Authority is required to have due regard to any representations made by the licensee in respect of proposed revisions to SMAE values and to give its reasons for any decisions in relation to them.

8.21 Having complied with the notice requirements referred to in paragraph 8.19, the Authority will direct revised SMAE values as shown in column 3 of Table 8.3.

Delay in direction of revised PCFM Variable Values

8.22 If, for any reason, the Authority does not give a required direction of an SMAE value by the date shown in column 3 of Table 8.3, CRC 3E requires that the value should be directed by the Authority as soon as is reasonably practicable, to facilitate the notification and direction of the value of the term MOD_t under CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model).

9. Load Related Expenditure - financial adjustment methodology

Section 1 – Overview

9.1 The Authority's ED1 Strategy Decision document (see associated document a.) stated that the licensee's opening allowed levels of Load Related Expenditure might need to be adjusted during the Price Control Period to accommodate new and changing patterns of electricity use by electricity consumers. Accordingly, CRC 3G (Revising the allowed level of Load Related Expenditure) sets out a mechanism for 'relevant adjustments' to the licensee's allowed levels of Load Related Expenditure. Relevant adjustments may be positive or negative.

9.2 The licensee's opening allowed levels of Load Related Expenditure (in 2012/13 prices) were included in the calculation of its Opening Base Revenue Allowances and:

- set out against the licensee's name in the Table at Appendix 1 to CRC 3G; and
- represented by the opening values of the PCFM Variable Value for allowed Load Related Expenditure for the licensee (LRRC values).

9.3 CRC 3G sets out:

- the application windows during which relevant adjustment proposals can be made;
- the criteria for the proposal of relevant adjustments;
- the basis on which the Authority will determine relevant adjustments; and
- the basis on which the Authority will determine and direct revised LRRC values for the licensee.

9.4 The LRRC value for each Regulatory Year, revised as applicable, represents the licensee's total amount of allowed Load Related Expenditure (in 2012/13 prices) for that Regulatory Year.

9.5 The provisions of CRC 3G and this chapter mean that revised allowed levels of Load Related Expenditure (represented by revised LRRC values) can be included in the Annual Iteration Process for the ED1 Price Control Financial Model (PCFM) so that they interact with actual expenditure information and are appropriately reflected in Totex Incentive Mechanism adjustments and the calculation of values for the term MOD for the licensee.

9.6 The effects of revising LRRC values for Regulatory Years in the Price Control Period earlier than Regulatory Year t flow through to the determination of the value of MOD_t with appropriate Time Value of Money Adjustments under the functionality of the PCFM.

Section 2 – Determination of revisions to allowed levels of Load Related Expenditure

9.7 CRC 3G provides for:

- the licensee to propose revisions to allowed levels of expenditure (relevant adjustments), but only during two application windows specified in CRC 3G (see paragraph 9.9);
- the determination of relevant adjustments by the Authority; and
- the deeming of relevant adjustments in circumstances specified in CRC 3G.

9.8 CRC 3G also provides for the Authority to propose relevant adjustments in relation to allowed levels of Load Related Expenditure during a notice window after the end of the Price Control Period, specified in CRC 3G (see paragraph 9.10).

9.9 The application windows during which the licensee can propose relevant adjustments run from:

- (i) 1 May 2017 to 31 May 2017; and
- (ii) 1 May 2020 to 31 May 2020.

9.10 The notice window during which the Authority can give notice of proposed relevant adjustments runs from 1 September 2023 to 30 September 2023. This window is after the end of the Price Control Period whose last day is 31 March 2023.

9.11 CRC 3G and this chapter set out the basis on which relevant adjustments can be proposed by the licensee and the Authority. However, this chapter only deals with:

- (a) the determination of relevant adjustments proposed by the licensee; and
- (b) the determination and direction of revised LRRC values to give effect to determinations made under subparagraph (a).

9.12 Relevant adjustments proposed by the Authority are not effected through revisions to LRRC values for Regulatory Years in the Price Control Period and consequently are not dealt with further in this chapter.

Relevant adjustment proposals by the licensee

9.13 Relevant adjustments may be proposed by the licensee during both the first and second application windows provided that each proposal complies with the provisions of paragraphs 3G.6 to 3G.13 in CRC 3G.

9.14 A relevant adjustment proposal by the licensee must:

- (i) be based on information about the licensee's level of efficient Load Related Expenditure over the Price Control Period that was not available when the licensee's Opening Base Revenue Allowances were determined;
- (ii) take account of any relevant adjustments previously determined under CRC 3G;
- (iii) constitute a material amount, being an amount that satisfies the test specified in paragraph 3G.7 of CRC 3G;
- (iv) relate only to costs incurred and income from customer contributions received during the Price Control Period; and
- (v) constitute an adjustment to allowed expenditure that cannot be made under the provisions of any other Charge Restriction Condition.

9.15 A relevant adjustment proposal by the licensee must set out:

- (i) the changes to the licensee's allowed levels of Load Related Expenditure (LRRC values) that are proposed and the Regulatory Years to which those changes relate;
- (ii) any change to the licensee's Specific Customer Funded Reinforcement Percentage Band that is proposed;
- (iii) the basis on which proposed changes to the licensee's allowed levels of Load Related Expenditure have been calculated; and
- (iv) appropriate supporting evidence including actual and forecast changes in network loading.

Determinations and directions with respect to relevant adjustments proposed by the licensee

9.16 In accordance with CRC 3G, the Authority will determine the relevant adjustments to the licensee's levels of allowed expenditure with respect to proposals made by the licensee within four months of the close of each of the application windows referred to in paragraph 9.9 – ie by 30 September 2017 and 2020 unless the timetable is extended by the Authority in the circumstances and to the extent prescribed in CRC 3G. The determination of relevant adjustments will be made in accordance with the provisions of CRC 3G and this chapter.

9.17 A determination under paragraph 3G.17 of CRC 3G may confirm, reject, or amend the proposed relevant adjustment. If allowed expenditure levels are revised,

the Authority will also determine the Regulatory Years for which LRRC values are to be revised, which may be any of the Regulatory Years in the Price Control Period.

9.18 If the Authority has not determined a relevant adjustment in relation to a proposal duly made by the licensee in respect of Load Related Expenditure within the relevant time limit prescribed by CRC 3G, and the proposal has not been withdrawn, then the relevant adjustment, insofar as it relates to a revision to allowed expenditure levels and LRRC values for the licensee for the Regulatory Years specified in the proposals, will be deemed to have been made.

9.19 In determining any relevant adjustment, the Authority will:

- (a) consult with the licensee and other interested parties and take account of any representations made in responses;
- (b) have regard to the basis on which opening LRRC values were determined;
- (c) take no account of the general financial performance of the licensee under the price control arrangements set out in the Charge Restriction Conditions of the licence;
- (d) consider the value of any off-setting demand-side response solutions or use of other non-traditional reinforcement solutions, above the level incorporated in the licensee's business plan, that have avoided or, as may be, are reasonably expected to avoid, Load Related Expenditure;
- (e) consider whether the licensee's Load Related Expenditure has fallen outside any Specific Customer Funded Reinforcement Percentage Band under CRC 5G (Net to gross adjustment for Load Related Expenditure); and
- (f) check that the restriction specified in paragraph 3G.10 of CRC 3G has been included in the licensee's calculations (see paragraph 9.15 (iii)) and, if not, apply the restriction, if appropriate, in making its determination.

9.20 The stipulation in paragraph 9.19(d) means that the Authority may, in a relevant adjustment determination, include an uplift to the licensee's allowed expenditure levels in respect of expenditure by the licensee on demand-side response solutions and non-traditional reinforcement solutions, where it considers that such expenditure has avoided or is expected to avoid the need for Load Related Expenditure.

9.21 The restriction referred to in paragraph 9.19(f) is that a relevant adjustment proposed or made under CRC 3G must not exceed:

- (a) $TLRRCF - TLRRC_{OV} - (20\% \times TLRRC_{OV})$
where $TLRRCF > TLRRC_{OV}$; or
- (b) $TLRRCF - TLRRC_{OV} + (20\% \times TLRRC_{OV})$

where $TLRRCF < TLRRC_{ov}$

where:

TLRRCOV means the total of opening level of allowed levels Load Related Expenditure for the licensee; and

TLRRCF means the proposed revised total level of allowed Load Related Expenditure for the licensee.

9.22 Any determination of a relevant adjustment will specify:

- (a) the Regulatory Years to which any changes to allowed levels of Load Related Expenditure apply;
- (b) the revised allowed level of Load Related Expenditure for the licensee (in 2012/13 prices) for each of the Regulatory Years specified under subparagraph (a); and
- (c) the revised LRRC values representing the allowed expenditure levels referred to in subparagraph (b).

Section 3 - Notification and direction of revised PCFM Variable Values for Load Related Expenditure (LRRC values)

9.23 The Authority will give Notice to the licensee of any revisions to LRRC values that it proposes to direct:

- by 15 November 2017 in respect of relevant adjustments proposed by the licensee during the first application window; and
- by 15 November 2020 in respect of relevant adjustments proposed by the licensee during the second application window.

9.24 The Notice will confirm that:

- any revised LRRC value determinations have been made in accordance with CRC 3G; and
- the licensee has 14 days from the date of the Notice in which to make any representations concerning the proposed LRRC value revisions.

9.25 The Authority is required to have due regard to any representations or objections made by the licensee and to give its reasons for any decisions in relation to them.

9.26 Having complied with the notice requirements, the Authority will direct revised LRRC values for the Regulatory Years specified in its determination (or in respect of a deemed adjustment – see paragraph 9.18) by 30 November in the Regulatory Year t-1 concerned.

9.27 Indicative timings for the determination and direction of revised LRRC values are summarised in Table 9.1 below.

Table 9.1 – Indicative timings for the revision of LRRC values

Application window	Revised levels of allowed expenditure determined by	Revised LRRC values determined and directed by	Reflected in value of MOD for Regulatory Year
May 2017	30 Sep 2017	30 Nov 2017	2018/19
May 2020	30 Sep 2020	30 Nov 2020	2021/22

Delay in direction of revised PCFM Variable Values

9.28 If the Authority does not make one of the directions required under paragraph 9.26 by 30 November in the Regulatory Year t-1 concerned, then CRC 3G requires that the values concerned should be directed by the Authority as soon as is reasonably practicable, to facilitate the notification and direction of the value of the term MOD_t for the licensee under CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model).

10. Visual Amenity Projects - financial adjustment methodology

Section 1 – Overview

10.1 Under the RIIO-ED1 price control arrangements the licensee has been allocated a total visual amenity allowed expenditure amount for the Price Control Period. CRC 3J (Allowed expenditure on Visual Amenity Projects) specifies:

- the licensee’s total visual amenity allowed expenditure (TVAA) for the Price Control Period; and
- the basis for determining the licensee's allowed expenditure on Visual Amenity Projects (VAA values) for particular Regulatory Years.

10.2 A qualifying Visual Amenity Project is a scheme for placing existing overhead electricity distribution assets underground so as to improve the visual amenity of a National Park, Area of Outstanding Natural Beauty or National Scenic Area (the ‘designated areas’). The Regulatory Instructions and Guidance (RIGs) provide further details regarding reporting and definitions relating to this scheme and ‘designated areas’.

10.3 CRC 3J provides for the determination of the licensee’s allowed expenditure levels on Visual Amenity Projects using a formula for deriving revised values for the PCFM Variable Value VAA term. At the outset of the Price Control Period on 1 April 2015, the VAA values for the licensee for each Regulatory Year of the Price Control Period are set at zero. VAA values are then subject to revision in accordance with the formula set out in paragraph 3J.5 of CRC 3J which is reproduced below:

$$VAA_{t-2} = \min \left(VAE_{t-2}, TVAA - \sum_{2015/16}^{t-3} VAA_t \right)$$

where:

- TVAA means the licensee's total visual amenity allowed expenditure for the Price Control Period, as specified for the licensee in Appendix 1 to CRC 3J, expressed in 2012/13 prices; and
- VAE_{t-2} means the amount spent by the licensee in Regulatory Year t-2 on Visual Amenity Projects expressed in 2012/13 prices.

10.4 Paragraphs 3J.7 and 3J.8 of CRC 3J respectively specify that:

- for the purposes of the first determination of a revised VAA value, by 30 November 2016, the value of VAA_{t-2} is equal to the lesser of TVAA and VAE_{t-2} ; and
- in the formula set out in paragraph 3J.5 of CRC 3J, VAA values, for Regulatory Years earlier than Regulatory Year $t-2$, include any revisions to those values as determined by the Authority in accordance with Part B of CRC 3J.

Processing of VAA values under the Annual Iteration Process

10.5 As set out in chapter 1 of this handbook, the Annual Iteration Process for the ED1 Price Control Financial Model (PCFM) calculates values for the term MOD by recalculating base revenue figures for the licensee using revised PCFM Variable Values, including VAA values.

Section 2 - Determination, notification and direction of revised PCFM Variable Values for Visual Amenity Projects (VAA values)

Determination of revised VAA values

10.6 The formula for the licensee's allowed expenditure on Visual Amenity Projects (contained in CRC 3J and reproduced in paragraph 10.3 above) provides an updated level of allowed expenditure for each Regulatory Year $t-2$ (see note on temporal convention in chapter 1).

10.7 The amount spent by the licensee on Visual Amenity Projects in each Regulatory Year will be reported by the licensee in accordance with the RIGs.

Timing of determinations of revised VAA values

10.8 The first Regulatory Year of the Price Control Period is Regulatory Year 2015/16. The licensee will report its expenditure on Visual Amenity Projects for Regulatory Year 2015/16 to the Authority in accordance with the RIGs. Subject to the Notice requirements set out below, the first determination and direction of a revised VAA value for the licensee will take place by 30 November 2016 for the purposes of the Annual Iteration Process that will take place by 30 November 2016. Subsequent determinations will routinely follow the pattern shown in Table 10.1.

10.9 It should be noted that if the licensee has used up all of its total visual amenity allowed expenditure for the Price Control Period, the application of the formula in CRC 3J (reproduced in paragraph 10.3) will mean that VAA values for subsequent Regulatory Years will be determined to be zero.

Table 10.1 – Routine timings for determination of revised VAA values

Regulatory Year t-2 during which Visual Amenity Project expenditure takes place	Revised VAA value determined by	Reflected in value of MOD for Regulatory Year
2015/16	30 Nov 2016	2017/18
2016/17	30 Nov 2017	2018/19
2017/18	30 Nov 2018	2019/20
2018/19	30 Nov 2019	2020/21
2019/20	30 Nov 2020	2021/22
2020/21	30 Nov 2021	2022/23

10.10 The last Regulatory Year t-2 for which a revised VAA value will be determined during the Price Control Period is 2020/21. This is because expenditure reporting on Visual Amenity Projects for the last two Regulatory Years of the Price Control Period (2021/22 and 2022/23) will not be available in time to be included in a value for the term MOD. Therefore, adjustments to allowed expenditure on Visual Amenity Projects in 2021/22 and 2022/23 will be taken into account in the RIIO-ED2 price control arrangements for the licensee in a way that is consistent with the provisions for the calculation of VAA values in the licence and this handbook in the form they are in as at 31 March 2023. For the avoidance of doubt these arrangements will include Time Value of Money Adjustments and take into account the provisions relating to the licensee’s total visual amenity allowed expenditure for the Price Control Period.

10.11 Notwithstanding the routine timings set out in Table 10.1, the Authority may, in respect of any Annual Iteration Process, determine that the VAA value for a Regulatory Year earlier than Regulatory Year t-2 should be revised, if that is necessary because the licensee has been required to restate any values relating to Visual Amenity Projects under any provision of the licence. In those circumstances the revision to the VAA value(s) concerned would again be determined using the formula contained in CRC 3J, but using the restated values for the Regulatory Year(s) in question.

Notification and direction of revised PCFM Variable Values

10.12 Paragraph 3J.13 of CRC 3J requires the Authority to give the licensee at least 14 days’ notice setting out any revisions to VAA values that it has determined, before directing the revisions. This means that the Authority will give Notice to the licensee of any revisions of VAA values that it has determined by no later than 15 November in each Regulatory Year t-1. The Authority is required to have due regard to any representations made by the licensee and to give its reasons for any decisions in relation to them.

10.13 Having complied with the Notice requirements referred to in paragraph 10.12, and subject to paragraphs 10.8 and 10.10 above, the Authority will direct a revised VAA value for Regulatory Year t-2 (and for any earlier Regulatory Years for which relevant values have been restated) by 30 November in each Regulatory Year t-1.

Delay in direction of revised PCFM Variable Values

10.14 If, for any reason, the Authority does not give a required direction of a VAA value or values by 30 November in any Regulatory Year t-1, CRC 3J requires that the value or values should be directed by the Authority as soon as is reasonably practicable, to facilitate the notification and direction of the value of the term MOD_t under CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model).

11. Worst Served Customer Projects - financial adjustment methodology

Section 1 – Overview

11.1 The associated Charge Restriction Condition for this chapter is CRC 3H (Allowed expenditure on improving services to Worst Served Customers).

11.2 The RIIO-ED1 price control arrangements include a general incentive for the licensee to improve supply interruption performance, contained in CRC 2D (Adjustment of licensee’s revenues to reflect interruptions-related quality of service performance). However, the licensee has also been allocated a total amount of allowed expenditure on Worst Served Customer Projects. The definition of a Worst Served Customer is contained in CRC 3H and further information is contained in the Regulatory Instructions and Guidance (RIGs) which also set out the criteria that service improvement projects must meet.

11.3 The licensee’s allowed expenditure level on Worst Served Customer Projects is capped by both:

- (i) a total expenditure limit that is specified in Appendix 1 of CRC 3H, in 2012/13 prices; and
- (ii) a limit on the maximum amount of expenditure per Worst Served Customer (“Worst Served Customer Cap Per Customer”) that is specified in Appendix 2 of CRC 3H.

11.4 CRC 3H provides for the determination of the licensee’s allowed expenditure levels on Worst Served Customer Projects using a formula for deriving revised values for the PCFM Variable Value “WSCC”. At the outset of the Price Control Period on 1 April 2015, the WSCC value for the licensee for each Regulatory Year of the Price Control Period is set at zero. WSCC values are then subject to revision in accordance with the formula set out in paragraph 3H.5 of CRC 3H which is reproduced below:

$$WSCC_{t-2} = \min \left(WSE_{t-2}, TWSCC - \sum_{2015/16}^{t-3} WSCC_t \right)$$

where:

- TWSCC means the licensee’s total amount of allowed expenditure on Worst Served Customer Projects for the Price Control Period, as specified for the licensee in Appendix 1 of CRC 3H, expressed in 2012/13 prices.
- WSE_{t-2} means, subject to paragraph 3H.8 in CRC 3H, the amount spent by the licensee in Regulatory Year t-2 on Worst Served Customer Projects, expressed in 2012/13 prices.

11.5 In addition, the licensee must:

- (a) ensure that the total amount of expenditure on improving services to Worst Served Customers included in values for the term WSE for the Price Control Period does not exceed an amount calculated as:

$$WSCCPC \times TWSC$$

where:

WSCCPC means the Value for the Worst Served Customer Cap Per Customer for the licensee set out in Appendix 2 of CRC 3H; and

TWSC means the total number of Worst Served Customers included in Worst Served Customer Projects during the Price Control Period;

and

- (b) seek to ensure that its expenditure on Worst Served Customer Projects delivers to Worst Served Customers the Required Performance Improvement set out in Appendix 3 of CRC 3H.

11.6 For the avoidance of doubt, the reference in paragraph 11.5(a) to the total amount of expenditure on improving services to Worst Served Customers included in values for the term WSE for the Price Control Period includes expenditure in Regulatory Years 2021/22 and 2022/23 (see also paragraph 11.13).

11.7 The RIGs will provide further details regarding the definitions and reporting criteria for values of the term WSE and in respect of the Worst Served Customer Cap Per Customer.

Processing of WSCC values under the Annual Iteration Process

11.8 As set out in chapter 1 of this handbook, the Annual Iteration Process for the ED1 Price Control Financial Model (PCFM) calculates values for the term MOD by recalculating base revenue figures for the licensee using revised PCFM Variable Values, including WSCC values.

Section 2 - Determination, notification and direction of revised PCFM Variable Values for projects to improve services to Worst Served Customers (WSCC values)

Determination of revised WSCC values

11.9 The formula for the licensee's allowed expenditure on Worst Served Customer Projects (contained in CRC 3H and reproduced in paragraph 11.4 above)

provides an updated level of allowed expenditure for each Regulatory Year t-2 (see note on temporal convention in chapter 1).

11.10 The amount spent by the licensee on Worst Served Customer Projects in each Regulatory Year will be reported by the licensee in accordance with the RIGs.

Timing of determinations of revised WSCC values

11.11 The first Regulatory Year of the Price Control Period is Regulatory Year 2015/16. The licensee will report its expenditure on Worst Served Customer Projects for Regulatory Year 2015/16 to the Authority in accordance with the RIGs. Therefore, subject to the Notice requirements set out below, the first determination and direction of a revised WSCC value for the licensee will take place by 30 November 2016 for the purposes of the Annual Iteration Process that will take place by 30 November 2016. Subsequent determinations will routinely follow the pattern shown in Table 11.1 below.

11.12 It should be noted that, if the licensee has used up all of its total allowed expenditure (TWSCC) for the price control period the application of the formula in CRC 3H (reproduced in paragraph 11.4) will mean that WSCC values for subsequent Regulatory Years will be determined to be zero.

Table 11.1 – Routine timings for determination of revised WSCC values

Regulatory Year t-2 during which project expenditure takes place	Revised WSCC value determined by	Reflected in value of MOD for Regulatory Year
2015/16	30 Nov 2016	2017/18
2016/17	30 Nov 2017	2018/19
2017/18	30 Nov 2018	2019/20
2018/19	30 Nov 2019	2020/21
2019/20	30 Nov 2020	2021/22
2020/21	30 Nov 2021	2022/23

11.13 The last Regulatory Year t-2 for which a revised WSCC value will be determined during the Price Control period is 2020/21. This is because expenditure on Worst Served Customer Projects for the last two Regulatory Years of the Price Control Period (2021/22 and 2022/23) will not be available in time to be included in a value for the term MOD. Therefore, adjustments to allowed expenditure on Worst Served Customer Projects in 2021/22 and 2022/23 will be taken into account in the RIIO-ED2 price control arrangements for the licensee in a way that is consistent with the provisions for the calculation of WSCC values in the licence and this handbook in the form they are in as at 31 March 2023. For the avoidance of doubt these arrangements will include Time Value of Money Adjustments and take into account

the provisions relating to the licensee's total amount of allowed expenditure on Worst Served Customer Projects for the Price Control Period and the Worst Served Customer Cap Per Customer set out in Appendix 2 of CRC 3H.

11.14 Notwithstanding the routine timings set out in Table 11.1, the Authority may, in respect of any Annual Iteration Process, determine that the WSCC value for a Regulatory Year earlier than Regulatory Year t-2 should be revised, if that is necessary because the licensee has been required to restate any values relating to Worst Served Customer Projects under any provision of the licence. In those circumstances the revision to the WSCC value(s) concerned would again be determined using the formula contained in CRC 3H, but using the restated values for the Regulatory Year(s) in question.

Notification and direction of revised PCFM Variable Values

11.15 Paragraph 3H.14 of CRC 3H requires the Authority to give the licensee at least 14 days' notice setting out any revisions to WSCC values that it has determined, before directing the revisions. This means that the Authority will give notice to the licensee of any revisions of WSCC values that it has determined by 15 November in each Regulatory Year t-1. The Authority is required to have due regard to any representations made by the licensee and to give its reasons for any decisions in relation to them.

11.16 Having complied with the Notice requirements referred to in paragraph 11.15, and subject to paragraphs 11.11 and 11.13, the Authority will direct a revised WSCC value for Regulatory Year t-2 by 30 November in each Regulatory Year t-1.

Delay in direction of revised PCFM Variable Values

11.17 If, for any reason, the Authority does not give a required direction of a WSCC value or values by 30 November in any Regulatory Year t-1, CRC 3H requires that the value or values should be directed by the Authority as soon as is reasonably practicable, to facilitate the notification and direction of the value of the term MOD_t under CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model).

12. Innovation Roll-out Mechanism allowed expenditure – financial adjustment methodology

Section 1 - Overview

12.1 CRC 3D (The Innovation Roll-out Mechanism) sets out the basis for determining the licensee's allowed expenditure relating to Innovation Roll-out (IRM values) for particular Regulatory Years. All IRM values are stated in 2012/13 prices.

12.2 At the outset of the Price Control Period on 1 April 2015, the IRM value for the licensee for each Regulatory Year of the Price Control Period is set at zero and the licensee's Opening Base Revenue Allowances have been modelled on this basis.

12.3 CRC 3D sets out the basis on which allowed expenditure on the roll-out of proven innovations can be revised through "Relevant Adjustments". It also sets out how IRM values can be revised.

12.4 Under the Annual Iteration Process, allowed expenditure levels on Innovation Roll-out, represented by IRM values, as revised, interact with actual expenditure information so that appropriate Totex Incentive Mechanism adjustments are reflected in the calculation of values for the term MOD.

12.5 IRM values are stated in 2012/13 prices, consistent with the price base used in the ED1 Price Control Financial Model (PCFM) and the values for the term MOD.

12.6 CRC 3D provides for:

- the licensee to propose revisions to levels of allowed expenditure (Relevant Adjustments), but only during either or both of two application windows specified in CRC 3D (see paragraph 12.7); and
- the determination of Relevant Adjustments by the Authority.

12.7 The application windows during which the licensee can propose Relevant Adjustments run from:

- (a) 1 May 2017 to 31 May 2017; and
- (b) 1 May 2019 to 31 May 2019.

12.8 Any Relevant Adjustment resulting from a proposal made during the first application window may only provide for the revision of the IRM value for Regulatory Year 2018/19 and later Regulatory Years in the Price Control Period. Any Relevant Adjustment resulting from a proposal made during the second application window may only provide for the revision of the IRM value for Regulatory Year 2021/22 and Regulatory Year 2022/23.

12.9 Paragraph 3D.13 of CRC 3D specifies that a Relevant Adjustment proposal Notice by the licensee must:

- (a) state any statutory obligations or any requirements of the licence to which the Notice relates;
- (b) describe the Proven Innovation that the licensee proposes to roll-out;
- (c) propose the amount of the Relevant Adjustment and set out, by reference to the Innovation Roll-out Costs, the basis on which the licensee has calculated the Relevant Adjustment;
- (d) demonstrate that the costs to be recovered through the Relevant Adjustment will be a material amount for the purposes of paragraph 3D.9 of CRC 3D (see paragraph 12.10);
- (e) demonstrate how each of the criteria set out in Part B of CRC 3D will be fulfilled by the roll-out using the additional funding sought;
- (f) propose relevant outputs or other end products against which the roll-out will be assessed;
- (g) set out the revisions to IRM values that the licensee considers should be made to implement the Relevant Adjustment; and
- (h) state the date from which it is proposed that the Relevant Adjustment would have effect ("the adjustment date") and the Regulatory Years to which the Relevant Adjustment would apply.

Materiality threshold

12.10 For the purposes of the requirement at subparagraph 12.9(d), the meaning of 'material amount' is given at paragraph 3D.9 of CRC 3D.

12.11 The Authority will determine Relevant Adjustments to the licensee's levels of allowed expenditure with respect to proposals made by the licensee within four months of the close of the application window concerned. Determinations will be made in accordance with the methodology set out in section 2 of this chapter. Section 3 of this chapter provides for the determination and direction of revised IRM values. The IRM value for any particular Regulatory Year, as revised, represents the total amount of allowed Totex expenditure (in 2012/13 prices) for Innovation Roll-out for that Regulatory Year.

Part 2 - Methodology for determining Relevant Adjustments in respect of Innovation Roll-out

12.12 If the Authority receives Notice of a proposed Relevant Adjustment from the licensee in respect of Innovation Roll-out costs it will take the steps set out below to determine whether the proposed adjustment should be confirmed, rejected or amended.

Determination steps

- (i) The Authority will check whether the Notice has been received during one of the two application windows referred to in paragraph 12.7. If the Notice has been received before the start of an application window the Authority will notify the licensee that the Notice has been submitted too early and should be resubmitted during an application window. If the Notice has been received outside an application window the Authority will notify the licensee that the Notice has been received too late and that a Relevant Adjustment will not be determined.
- (ii) The Authority will check whether each of the requirements set out in paragraph 3D.13 of CRC 3D has been met;
- (iii) The Authority will decide whether it requires any further information from the licensee in order to make a determination and, if it decides that further information is required, it will give Notice of that requirement to the licensee as soon as reasonably practicable and will allow such time for provision of that information as appropriate, taking account of:
 - a. the amount of time that the licensee will reasonably require to compile the information;
 - b. the four month period for determinations referred to in paragraph 3D.15 of CRC 3D; and
 - c. the need to consult the licensee on its proposed determination.
- (iv) The Authority will consider the factors set out in paragraph 3D.8 of CRC 3D, namely whether the innovation/proposed Relevant Adjustment:
 - a. will deliver Carbon Benefits or any wider environmental benefits;
 - b. will provide long-term value for money for electricity consumers;
 - c. will not enable the licensee to receive commercial benefits from the roll-out within the remainder of the Price Control Period (for instance, where the roll-out of a Proven Innovation will lead to cost savings (including benefits from other incentive mechanisms) equal to or greater than its implementation costs within the Price Control Period); and
 - d. will only be used to fund the roll-out of a Proven Innovation.
- (v) Having carried out steps (i) to (iv) above, the Authority will provisionally determine whether to:
 - a. reject the Relevant Adjustment proposed by the licensee;
 - b. confirm the Relevant Adjustment proposed by the licensee; or
 - c. amend the Relevant Adjustment proposed by the licensee.

If the Authority considers that the licensee's proposal should be confirmed or amended it will provisionally determine the adjustments to allowed expenditure that should be made and the Regulatory Years to which those adjustments should be applied.

If the Authority considers that the proposed Relevant Adjustment should not be made it will provisionally determine that no adjustments to allowed expenditure should be made.

- (vi) The Authority will consult the licensee on its provisional determination, allowing the licensee at least 28 days in which to respond.
- (vii) The Authority will consider any consultation responses from the licensee and will then make a Relevant Adjustment determination.

12.13 A determination by the Authority that confirms or amends a Relevant Adjustment proposed by the licensee in respect of Innovation Roll-out will specify:

- (a) the Regulatory Years to which the determination applies; and
- (b) revised amounts of allowed expenditure (in 2012/13 prices) for the Innovation Roll-out for each of the specified years.

12.14 The Authority will apply any Relevant Adjustment determined under this section in the determination of revised IRM values under section 3 of this chapter.

Section 3 – Determination, notification and direction of revised IRM values

12.15 CRC 3D specifies that IRM values for the licensee as at 1 April 2015 for each Regulatory Year of the Price Control Period will be zero.

12.16 On or before 31 October in Regulatory Year 2017/18 and each subsequent Regulatory Year up to and including 2022/23, Ofgem will check to see whether any determinations of Relevant Adjustments have been made in respect of Innovation Roll-out that change levels of allowed expenditure for the licensee and that have not previously been taken fully into account in the determination of revisions to IRM values for the Regulatory Year or Years referred to in the determinations.

12.17 If determinations of Relevant Adjustments have not previously been taken into account, the Authority will determine that the IRM values for the Regulatory Years concerned are to be revised so that they take into account the revised allowed expenditure amounts (in 2012/13 prices) specified in the Relevant Adjustment determinations.

Notification and direction of revised IRM values

12.18 The Authority will give notice of any revisions to IRM values that it proposes to direct by 15 November in Regulatory Year 2017/18 and each subsequent Regulatory Year up to and including 2021/22, being at least 14 days before the deadline date of 30 November in each of those Regulatory Years for the direction of revised PCFM Variable Values. The notice will confirm that:

- any revised IRM value determinations have been made in accordance with Part G of CRC 3D; and
- the licensee has 14 days from the date of the notice in which to make any representations concerning proposed IRM value revisions.

12.19 The Authority is required to have due regard to any representations or objections made by the licensee and to give its reasons for any decisions in relation to them.

12.20 The Authority will only direct revisions to IRM values in accordance with the provisions of CRC 3D. However, the overall direction of PCFM Variable Value revisions in each Regulatory Year $t-1$ will include a copy of the PCFM Variable Values Table for the licensee showing the state of all PCFM Variable Values including IRM values.

Delay in direction of revised IRM values

12.21 If the procedures set out in CRC 3D and this chapter call for the Authority to direct revised IRM values by 30 November 2017 or by 30 November in a subsequent Regulatory Year, and the Authority does not make such a direction, then CRC 3D requires that the values concerned should be directed by the Authority as soon as is reasonably practicable, to facilitate the notification and direction of the value of the term MOD_t for the licensee under CRC 4B (Annual Iteration Process for the PCFM).

12A. WPD Rail electrification allowed expenditure – financial adjustment

Section 1 - Overview

12A.1 The associated Charge Restriction Condition for this chapter is CRC 3K (Rail electrification adjustments). This chapter is only applicable to the following licensees:

- Western Power Distribution (East Midlands) plc;
- Western Power Distribution (West Midlands) plc;
- Western Power Distribution (South Wales) plc; and
- Western Power Distribution (South West) plc.

12A.2 The modelling of the licensee's Opening Base Revenue Allowances included allowed Totex expenditure amounts for asset diversion works (the movement of electrical lines or plant) necessitated by the rail electrification projects set out in Table 12A.1 below which are being undertaken by Network Rail.

Table 12A.1 – Rail electrification projects

Rail electrification project	West Midlands	East Midlands	South Wales	South West
Paddington-Swansea	✓	n/a	✓	✓
Cardiff- Valleys	n/a	n/a	✓	n/a
Midlands Mainline	n/a	✓	n/a	n/a
Birmingham-Plymouth	✓	n/a	n/a	✓

12A.3 The allowed Totex expenditure amounts referred to in paragraph 12A.2 were based on the expected level of diversion costs arising as a result of wayleave terminations by Network Rail and payable by the licensee during the Price Control Period ('expected diversion costs') in respect of the projects set out in Table 12A.1. These amounts were based on assumptions included in the licensee's business plan for the RIIO-ED1 price control. These amounts do not include diversion works that take place in public highways, where a proportion of asset diversion costs can be recharged to the person requiring the diversion to be made or to a third party. For this category of diversion, the licensee's business plan assumed that the funding would be 82% from payments from Network Rail and 18% from the licensee.

12A.4 If the Authority is notified that, or becomes aware that, some of the expected diversion costs will be met by another party (through 'additional contributions') it will determine that the licensee's allowed Totex expenditure should be reduced by an equivalent amount. The reduction is applied to the ANLR category of Totex (see Table 6.2 in chapter 6).

12A.5 CRC 3K provides for the Authority to direct changes to the PCFM Variable Values that relate to reductions in allowed Totex expenditure associated with additional contributions (RE values). Proposed changes must be made in accordance with the methodology set out in this chapter.

12A.6 The RE values for each Regulatory Year have opening values (at 1 April 2015) of zero. The following points apply to RE values:

- (i) RE values can only be zero or negative; and
- (ii) the RE value for any Regulatory Year in the Price Control Period can be revised at any time before 30 November 2021 where that is consistent with the methodology set out in section 2 of this chapter.

12A.7 Any revised RE values are processed under the Annual Iteration Process as changes to allowed expenditure (see paragraph 2.5 and Table 2.1 in chapter 2) with the effects flowing through to the calculation and determination of the value of the term MOD for Regulatory Year t.

12A.8 It should be noted that there is no provision to revise allowed levels of Totex expenditure for the licensee (upwards or downwards) in respect of outturn levels of diversion work activity – only in respect of the level of additional contributions.

Section 2 – Determination, notification and direction of revised PCFM Variable Values for rail electrification (RE values)

Determination of revised RE values

12A.9 The Authority will take no action with respect to the revision of RE values unless it is notified that, or becomes aware that, some expected diversion costs will be met by additional contributions.

12A.10 Subject to paragraph 12A.12, if the Authority is notified that, or becomes aware that, some expected diversion costs will be met by additional contributions, it will review the information and confer with the licensee to verify the actual level of additional contributions that apply to each Regulatory Year in the Price Control Period. Having done this, the Authority will determine that the RE value for each and every Regulatory Year in the Price Control Period should be revised to a value ascertained using the following formula:

$$\text{Revised RE value} = (-1 \times \text{aggregate amount of additional contributions})$$

12A.11 In the formula for revised RE values set out in paragraph 12A.10, the reference to the 'aggregate amount of additional contributions' means the sum (expressed in 2012/13 prices) of:

- (i) any additional contributions for the Regulatory Year concerned that have been taken into account in a prior revision of the RE value for that Regulatory Year; and
- (ii) any incremental additional contributions for the Regulatory Year concerned of which the Authority has been notified or become aware.

The aggregate amount of additional contributions is multiplied by negative 1, so that it is treated by the PCFM as a reduction in allowed Totex expenditure.

12A.12 Paragraph 3K.6 of CRC 3K specifies that the last date by which the Authority can direct that RE values for the licensee are to be revised is 30 November 2021, for the purpose of the Annual Iteration Process that will take place by 30 November 2021 (the last Annual Iteration Process during the Price Control Period). It is expected that all necessary revisions to RE values will be directed by this point. However, if the Authority is notified of, or becomes aware of, additional contributions too late to include in a revision of RE values, then those additional contributions will be addressed under the RIIO-ED2 price control arrangements.

12A.13 For the purpose of determining any revisions to RE values, additional contributions will be applied to the Regulatory Year in which the associated costs are reported. There is no materiality threshold with respect to the level of additional contributions that can be taken into account.

12A.14 The licensee is required to report all diversion costs and contributions in accordance with applicable requirements contained in the RIGs.

Notification and direction of revised RE values

12A.15 References to Regulatory Year t-1 in this section follow the convention set out in paragraph 1.7 of this handbook - ie each should be read as being relative to a Regulatory Year t in which the MOD term is used to adjust the licensee's Opening Base Revenue Allowance.

12A.16 Subject to paragraph 12A.12, if by 31 October in any Regulatory Year t-1, the Authority determines that one or more RE values should be revised, it will give notice to the licensee of the proposed revisions by 15 November in the same Regulatory Year t-1 (being at least 14 days before the deadline date for the direction of revised PCFM Variable Values). The notice will confirm that:

- any revised RE values have been determined in accordance with Part A of CRC 3K, which cross refers to this chapter of the ED1 Price Control Financial Handbook; and
- the licensee has 14 days from the date of the notice in which to make any representations concerning the proposed RE value revisions.

12A.17 The Authority is required to have due regard to any representations or objections made by the licensee and to give its reasons for any decisions in relation to them.

12A.18 Subject to paragraph 12A.12, if the Authority determines that one or more RE values should be revised after 31 October in any Regulatory Year $t-1$, then the Authority will give notice to the licensee of the proposed revisions by 15 November in the next Regulatory Year.

Delay in direction of revised RE values

12A.19 If the methodology set out in this section calls for the Authority to direct revised RE values by 30 November in a particular Regulatory Year $t-1$, and the Authority does not make such a direction, then paragraph 3K.10 of CRC 3K requires that the values should be directed by the Authority as soon as is reasonably practicable, to facilitate the notification and direction of the value of the term MOD_t under CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model).

Appendix 1 - Glossary

A

Annual Iteration Process

The Annual Iteration Process is the process set out in CRC 4B (Annual Iteration Process for the ED1 Price Control Financial Model) that uses revised PCFM Variable Values in the ED1 Price Control Financial Model to recalculate base revenue figures for the licensee for the Price Control Period. The product of each Annual Iteration Process is the value for the term MOD_t which is a component term in the formula for the licensee's Base Demand Revenue, representing the incremental change to the licensee's Opening Base Revenue Allowance for the Regulatory Year t . The Annual Iteration Process is completed by 30 November in each Regulatory Year $t-1$ during the Price Control Period.

B

Base Annual PSED Allowance

For the purposes of chapter 3 of this handbook, means an allowance derived in accordance with the formulae set out in row 7 of Tables 3.2 and 3.3 in chapter 3 and excludes the components of total PSED repair allowances that relate to:

- the licensee's under/over-payment history; and
- the application of adjustment factors resulting from Reasonableness Reviews.

Base Demand Revenue (BR_t)

The amount included in the licensee's Allowed Distribution Network Revenue for a particular Regulatory Year, that is derived in accordance with the formula set out in paragraph 2A.5 of CRC 2A (Restriction of Allowed Distribution Network Revenue).

C

Contingent Asset

For the purposes of the methodology in chapter 3 of this handbook, means an asset made subject to arrangements under which it might:

- (a) be claimed by the pension scheme trustees;
- (b) be reclaimed by the licensee; or
- (c) remain subject to the arrangement,

depending on the circumstances arising/prevaling and the contractual terms of the arrangement.

An example of a Contingent Asset arrangement could be the payment of funds into an escrow account.

Cut-Off Date

In respect of the Pension Scheme Established Deficit for electricity distribution licensees, means 31 March 2010.

D

Decimal Percentage

For the purposes of chapter 5 of this handbook, means a percentage value expressed in decimal format so that, for example, five percent (5%) expressed as a Decimal Percentage is 0.05 and twenty percent (20%) expressed as a Decimal Percentage is 0.2.

Defined Benefit Scheme

A pension scheme where the benefits that accrue to members are normally based on a set formula taking into account the final salary and accrual of service in the scheme. It is also known as a final salary pension scheme.

Defined Contribution Scheme

A pension scheme where the benefits that accrue to members are based on the level of cash contributions made to an individual account; the returns on those funds are used to provide a cash amount to purchase an annuity on retirement.

Distribution Services Provider

Has the meaning given in Standard Condition1 (Definitions for the standard conditions) of the electricity distribution licence.

[Distribution Services Area](#)

Has the meaning given in Standard Condition1 of the electricity distribution licence.

[DPCR5 Financial issues Data Tables](#)

The data tables of that name referred to in the RIGs applicable to the licensee in the DPCR5 Price Control Period.

[DPCR5 IQI Incentive Rate](#)

Means the incentive rate set out in the table at Appendix 1 to Special Condition CRC 18 (Arrangements for the recovery of uncertain costs) of the licence in the form that it was in on 31 March 2015 which is reproduced below.

Licensee	Incentive rate
Western Power Distribution (West Midlands)	47%
Western Power Distribution (East Midlands)	47%
Electricity North West Ltd	45%
Northern Powergrid (Northeast) Limited	48%
Northern Powergrid (Yorkshire) plc	48%
Western Power Distribution (South Wales)	51%
Western Power Distribution (South West) plc	51%
London Power Networks plc	45%
South Eastern Power Networks plc	45%
Eastern Power Networks plc	45%
SP Distribution Ltd	45%
SP Manweb plc	45%
Scottish Hydro Electric Power Distribution plc	49%
Southern Electric Power Distribution plc	49%

[DPCR5 Price Control](#)

The price control arrangements applicable to Electricity Distributors from 1 April 2010 until 31 March 2015.

DPCR5 Revenue Allowance

In this handbook means the PU value sets against the licensee's name in Appendix 1 to Special condition CRC3 (Restriction of Distribution Charges: Use of System Charges) of the licence in the form which it was in on 31 March 2015 for a particular Regulatory Year in the DPCR5 price control period.

DPCR5 Time Value of Money Adjustment

A multiplier determined as $(1+X)^Y$ where:

- o X is the WACC for the licensee applicable in the DPCR5 period, which is 4.69%; and
- o Y represents the number of years over which the DPCR5 Time Value of Money Adjustment is to be applied.

E

Early Retirement Deficiency Contributions (ERDCs)

The cost of providing enhanced pension benefits granted under severance arrangements prior to 1 April 2004 that were not fully matched by increased contributions.

ED1 Price Control Financial Instruments

The collective term for the ED1 Price Control Financial Handbook and the ED1 Price Control Financial Model.

ED1 Price Control Financial Model Working Group

The working group whose terms of reference are set out in section 3 of chapter 1 of this handbook.

ED1 Price Control Financial Methodologies

The methodologies set out in sections 2 and 3 of this handbook that form part of CRC 4A (Governance of ED1 Price Control Financial Instruments) and that are used to determine revised PCFM Variable Values.

ED1 Price Control Financial Model (PCFM)

The model of that name (with a suffix referring to the month of November in Regulatory Year t-1 as that term is defined for the purposes of CRC 4A) that:

- (a) was first published by the Authority on 21 May 2014 and came into effect on 1 April 2015;
- (b) is represented by a workbook in Microsoft Excel ® format maintained under that name (with a Regulatory Year suffix) on the Authority's website; and

- (c) will be used by the Authority to determine the value of the term MOD_t through the application of the Annual Iteration Process,

as modified from time to time in accordance with the provisions of CRC 4A (Governance of ED1 Price Control Financial Instruments).

Enhanced Physical Site Security Costs

Has the meaning given in CRC 3F.

F

Fast Money

In this handbook the term Fast Money refers to:

- allowance adjustments that flow directly into recalculated base revenue figures for the licensee; and
- the proportion of Totex which is not added to the licensee's RAV balance and is effectively included in the licensee's revenue allowance for the year of expenditure (see also Slow Money and Totex Incentive Mechanism).

Funding Adjustment Rate

The percentage calculated as $(1 - \text{Totex Incentive Strength Rate})$.

I

International Financial Reporting Standards (IFRS)

Accounting standards set by the International Accounting Standards board.

M

MOD

The term of that name included in the formula for Base Demand Revenue set out in CRC 2A (Restriction of Allowed Distribution Network Revenue). It represents the incremental change to be applied to the licensee's Opening Base Revenue Allowance for the Regulatory Year concerned. Values for the MOD term are calculated under the Annual Iteration Process for the ED1 Price Control Financial Model - see CRC 4B and chapter 2 of this handbook.

The value of MOD_t is specified in a direction given by the Authority by 30 November in each Regulatory Year $t-1$.

N

Notice

Has the meaning given in Standard Condition1 of the electricity distribution licence.

O

Ofgem Website

The website at the URL: www.ofgem.gov.uk

Ongoing Pension Service Costs (OPSC)

All pension costs incurred by the licensee except those relating to the Pension Scheme Established Deficit.

Opening Base Revenue Allowance

The amount in 2012/13 prices, represented by the term PU_t , included in the licensee's Base Demand Revenue for a particular Regulatory Year that is set down against the licensee's name in the table at Appendix 1 to CRC 2A (Restriction of Allowed Distribution Network Revenue).

P

PCFM Variable Value

means a value held in the PCFM Variable Values Table for the licensee contained in the ED1 Price Control Financial Model:

- (a) that may be revised by a direction of the Authority following a determination under the relevant CRC; but
- (b) the revision of which does not constitute a modification of the ED1 Price Control Financial Model for the purposes of CRC 4A.

PCFM Variable Values Table (for the licensee)

The table of blue shaded cells on the Input' worksheet of the ED1 PCFM containing the PCFM Variable Values for the licensee .

Pension Deficit Allocation Methodology

The methodology of that name contained in the Pension RIGs used by the Authority in the determination of the licensee's Pension Scheme Established Deficit.

Pension Principles

The principles set out in Appendix 7 of the Strategy decision for the RIIO-ED1 electricity distribution price control (Financial issues) published by Ofgem on 4 March 2013 under reference number 26d/13.

Pension Protection Fund (PPF)

The fund, established under the provisions of the Pensions Act 2004, to provide compensation to members of eligible defined benefit pension schemes, when there is a qualifying insolvency event in relation to the employer, and where there are insufficient assets in the pension scheme to cover the Pension Protection Fund level of compensation.

Pension Protection Fund (PPF) Levy

The levy on pension schemes by which the PPF is financed. This levy has a number of constituent elements including a fixed element (based on scheme liabilities) and a risk based element (based on the perceived insolvency risk of each scheme). Additionally there is an administration levy charged to cover the PPF running costs.

Pension RIGs

The Energy Network Operators' Price Control Pension Costs - Regulatory Instructions and Guidance: Triennial Pension Reporting Pack supplement including the Pension Deficit Allocation Methodology published by Ofgem on 12 April 2013.

Pension Scheme Administration

The range of activities that pension scheme trustees are required by legislation to undertake or commission in running the pension scheme. It includes, without limitation, the keeping of scheme records, scheme management and administration, scheme policy and strategy formulation, the provision of information to scheme members, the calculation and payment of benefits, liaison with tax and regulatory authorities and the preparation of valuations. It does not include the provision of advice to the licensee's manager on the management of the scheme or any deficit position. Administration costs do not include investment management fees; these are considered to be deductions from investment returns.

Pension Scheme Established Deficit (PSED)

The difference between pension scheme assets and liabilities, as determined under periodic scheme valuations, that is attributable to:

- the regulated business; and
- pensionable service up to the end of the cut-off date, which for Electricity Distributors is 31 March 2010.

If the Pension Scheme Established Deficit figure becomes negative, it is referred to as a surplus relating to pensionable service up to the end of the cut-off date.

Pension Scheme Incremental Deficit (PSID)

The difference between pension scheme assets and liabilities, as determined under periodic scheme valuations, that is attributable to:

- the regulated business; and
- pensionable service after the cut-off date, which for electricity distributors is 31 March 2010.

If the incremental deficit figure becomes negative, it is referred to as a surplus relating to pensionable service after the cut-off date.

R

RAV – Regulatory Asset Value

A financial balance representing expenditure by the licensee that has been capitalised under regulatory rules. The licensee receives a return and depreciation on its RAV in its price control allowed revenues.

Reasonableness Review

A review by the Authority of the findings of an independent report commissioned by it on the reasonableness of costs associated with the licensee's pension deficit position (but not on the deficit allocation to the PSED) which may lead to further review procedures if the licensee is an outlier with respect to cost levels and that position is:

- (a) to the detriment of consumers; and
- (b) reasonably attributable to the NWO, recognising the responsibilities and independence of pension scheme trustees.

Regulatory Accounts

Has the meaning given in Standard Condition¹ of the electricity distribution licence.

Regulatory Instructions and Guidance (RIGs)

The collective term for documents issued to licensee by the Authority that include:

- instructions regarding data and information that the licensee must report to Ofgem;
- guidance on the way in which data and information should be reported and the timing requirements for submissions; and
- templates, including workbooks in Microsoft Excel® format, for use by the licensee in making submissions.

Regulatory Year

A year beginning on 1 April and ending on the following 31 March in respect of which price control allowances are set. The RIIO-ED1 Price Control Period comprises the eight Regulatory Years from 1 April 2015 to 31 March 2023.

Relevant Adjustment

For the purposes of chapter 12 of this handbook, has the meaning given in CRC 3D (The Innovation Roll-out Mechanism).

RIGs

See Regulatory Instructions and Guidance.

RIIO

Revenue = Incentives + Innovation + Outputs.
Ofgem's framework for the economic regulation of energy networks.

RIIO-ED1

The price control arrangements applicable to Electricity Distributors from 1 April 2015 until 31 March 2023.

RIIO-ED2

The price control arrangements that will be applicable to Electricity Distributors after 31 March 2023.

S

Scheme Valuation Dataset

The items set out in paragraph 3.22 of chapter 3 of this handbook, provided to Ofgem by the licensee in accordance with the Pension RIGs.

Slow Money

The proportion of Totex that is added to the licensee's RAV balance on which the licensee receives a revenue allowance to cover finance (vanilla WACC) and depreciation costs.

Smart Meter Installation

Has the meaning given in CRC 3E (Smart Meter Roll-out Costs).

Smart Meter Intervention

Has the meaning given in CRC 3E.

Specific Customer Funded Reinforcement Percentage Band

Means the band of percentage values specified against the licensee's name in Table 2 of CRC 5G (Net to gross adjustment for Load Related Expenditure).

T

Time Value of Money Adjustment

A multiplier used when the award or application of a financial value, attributable to a particular year, is deferred until a later year, even where the deferral is routine and in accordance with a price control mechanism.

In basic terms, for any one year, the multiplier is $(1+X)$ where:

- X is the WACC for the licensee applicable to the period of deferral.

See also DPCR5 Time Value of Money Adjustment

Totex

The term used to describe the licensee's total expenditure (with limited exceptions) on regulated business activities. It includes both capital and operating expenditure items. The Totex approach facilitates the equalisation of incentives (between capital and operating expenditure solutions) under the Totex Incentive Mechanism.

Totex Incentive Mechanism (TIM)

TIM is the mechanism under which adjustments are made to reflect differences between the licensee's allowed Totex and actual. The licensee's Opening Base Revenue Allowances have been modelled on the basis that actual Totex expenditure levels are expected to equal allowed Totex expenditure levels (allowances). If actual (outturn) expenditure differs from allowances, for any Regulatory Year during the Price Control Period, the TIM provides for an appropriate sharing of the incremental amount (whether an overspend or under spend) between consumers and the licensee in accordance with the licensee's Totex Incentive Strength Rate.

Totex Capitalisation Rate

The percentage of Totex which is added to RAV (see also "slow money").

Totex Incentive Strength Rate (TISR)

A percentage figure specified in CRC 3B (Determination of PCFM Variable Values for Totex Incentive Mechanism Adjustments) for the licensee. It represents the percentage of any overspend/under spend against Totex allowances that a licensee bears/retains.

Triennial (pension scheme) valuation

An actuarial valuation of a pension scheme which has been carried out to meet the requirements of Section 224(2)(a) of the Pensions Act 2004 and which results in a written report on scheme assets and liabilities by the scheme actuary. Interim updates to triennial valuations may also be produced.

U

Updated (pension scheme) valuation

A report by the scheme actuary which provides an update on scheme assets and liabilities between triennial valuations.

V

Vanilla WACC

See WACC.

Visual Amenity Project

Has the meaning given in CRC 3J (Allowed expenditure on Visual Amenity Projects).

W

WACC

The Vanilla Weighted Average Cost of Capital is Ofgem's preferred way of expressing the rate of return allowed on the Regulatory Asset Values (RAV) of price controlled network companies. The use of Vanilla WACC means that the company's tax cost is separately calculated as a discrete allowance so that only the following have to be factored in:

- the pre-tax cost of debt - ie the percentage charge levied by lenders; and
- the post tax cost of equity – ie the percentage return equity investors expect to actually receive, weighted according to the price control gearing assumption.

"Real Vanilla WACC" is used which gives a lower percentage than "Nominal Vanilla WACC" would (when inflation is positive). This is because inflation isn't taken into account in the determination of the Real Vanilla WACC percentage.

Worst Served Customer

Has the meaning given in CRC 3H (Allowed expenditure on improving services to Worst Served Customers).



Worst Served Customer Project

Has the meaning given in CRC 3H.