

GT1 Price Control Financial Handbook

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Overview:

This is the GT1 Price Control Financial Handbook which forms part of Special Condition 4A (Governance of GT1 Price Control Financial Instruments) of the Gas Transporter Licence held by National Grid Gas plc in respect of the national gas transmission system.

This document consists of:

- a) a description of the GT1 Price Control Financial Model (PCFM) and the Annual Iteration Process for it, used to calculate amounts to be added to the licensee's Opening Base Revenue Allowances during the course of the RIIO-T1 Price Control Period to derive a recalculated base revenue value;
- b) an overview of the GT1 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 Special Conditions of the Licence; and
- c) a series of chapters containing the detailed methodologies relating to PCFM Variable Values.

The procedures relating to modification of this Handbook and the PCFM are contained in Special 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-T1 price control arrangements are the first to apply Ofgem's RIIO framework (Revenue = Incentives + Innovation + Outputs). The RIIO approach places more emphasis on incentivising 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-T1 price control is longer than the previous transmission price controls (known as TPCR), running for eight years instead of five. This provides for a longer period of settled price control arrangements and should facilitate improved strategic planning and a long term approach to gas transmission infrastructure management.

However, the RIIO price control mechanisms are also more dynamic. Under the TPCR price controls, Base NTS Transportation Owner Revenue and NTS System Operation Revenue allowances typically representing over 80 per cent of network operation revenues, were set up-front for the whole of the price control period, changing only with RPI indexation. A number of significant adjustments to reflect activity levels and varying financial conditions were necessarily left in abeyance until the subsequent five-yearly review. Under RIIO-T1, comprehensive adjustments to Base NTS Transportation Owner Revenue will be made each year in respect of the licensee's Transportation Owner (TO) role and System Operator (SO) role.

This more sophisticated approach involves an annual iteration of the GT1 Price Control Financial Model (PCFM) 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 Handbook (which forms part of Special Condition 4A) sets out the required processes and methodologies. To promote transparency, up to date copies of both the Handbook and the PCFM will be maintained on the Ofgem website.

Associated documents

- a. GT1 Price Control Financial Model (PCFM)
www.ofgem.gov.uk - search term "PCFM"
- b. RIIO-T1 Price Control Final Proposals
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/1_RIIOT1_FP_overview_dec12.pdf

Contents

Introduction	7
Terms used in this Handbook	7
1. The GT1 Price Control Financial Model and the Annual Iteration Process	9
Overview	9
Price base.....	9
where:	10
Temporal convention	10
The Price Control Financial Model and the Annual Iteration Process	10
The GT1 Price Control Financial Model Working Group	14
Terms of reference	14
2. The GT1 Price Control Financial Methodologies.....	16
Methodologies in this Handbook	16
Processing of different types of PCFM Variable Value under the Annual Iteration Process	19
3. Pension Scheme Established Deficit revenue allowances - financial adjustment methodology	21
Section 1 - Introduction.....	21
Price control pension principles	22
Section 2 – General provisions	22
Pension Scheme Established Deficit	22
Asset-backed funding arrangements	24
Pension Scheme Administration and PPF levy	24
Costs and adjustments outside the scope of this chapter	25
Pension costs for service after the cut-off date	25
True-up for pension payments by a relevant licensee in the GDPCR1 price control period	26
Section 3 – Methodology for revising Pensions Allowance values.....	26
Overview.....	26
Determination of revised Pensions Allowance values	27
Base Annual PSED Allowances.....	27
Proposal for Base Annual PSED Allowances	28
Payment history allowances	29
Framing proposals for Base Annual PSED Allowances and payment history allowances	32
Adjustment factors and Reasonableness Reviews	33
Section 4 – Pension scheme administration and PPF levy allowances	35
Section 5 – Reasonableness reviews and revising Pensions Allowance values	36
Direction of revised Pensions Allowance values.....	40
4. Tax liability allowances - financial adjustment methodologies	41
Part 1 - Overview	41
Temporal conventions	41
Annual Iteration process.....	41
Price bases for tax calculations.....	42
Regulatory tax losses.....	43
Group tax arrangements	43
Part 2 - Adjustments driven by tax trigger events - methodology	44
Tax trigger events	44
Materiality threshold and 'deadband'	45
Accounting standards.....	45
Notification of tax trigger events	46
Logging of trigger events.....	48
Determination and direction of revised TTE and SOTTE values.....	48

Part 3 - Adjustments driven by gearing levels and corporate debt interest costs ('tax clawback') – methodology.....	51
Determination and direction of revised TGIE and SOTGIE values	51
Direction of TGIE and SOTGIE values	53
Part 4 - Processing of revised TTE, SOTTE, TGIE and SOTGIE values under the Annual Iteration Process	54
5. Corporate debt - allowed percentage cost financial adjustment methodology.....	55
Overview	55
System Operator price control.....	55
Temporal conventions	56
Methodology for determining revised PCFM Variable Values for the cost of corporate debt	56
Non-availability of iBoxx or Bank of England data	58
Use of revised PCFM Variable Values in the Annual Iteration Process	59
6. Totex Incentive Mechanism – financial adjustment methodology	60
Description of the Totex Incentive Mechanism	61
Application of the TIM under the Annual Iteration Process	63
Determination of PCFM Variable Value revisions for actual Totex expenditure	66
Notification and direction of revised PCFM Variable Values	67
7. Uncertain costs allowed expenditure - financial adjustment methodology.....	68
Part 1 - Overview	68
Part 2 - Determination of PCFM Variable Value revisions for uncertain cost categories ..	72
Part 3 - Notification and direction of revised PCFM Variable Values	74
8. Incremental entry capacity allowed expenditure - financial adjustment methodology.....	76
Temporal convention	76
Methodology for determining revised PCFM Variable Values for incremental obligated entry capacity expenditure	76
Use of revised PCFM Variable Values in the Annual Iteration Process.....	77
9. Incremental exit capacity allowed expenditure - financial adjustment methodology.....	78
Temporal convention	78
Methodology for determining revised PCFM Variable Values for incremental obligated exit capacity expenditure.....	78
Use of revised PCFM Variable Values in the Annual Iteration Process.....	79
10. Innovation Roll Out mechanism allowed expenditure - financial adjustment methodology	80
Temporal convention	80
Determination and direction of revised IRM values.....	81
Processing of IRM values under the Annual Iteration Process	81
11. Legacy price control adjustments - financial methodologies.....	83
Introduction	83
Overview.....	83
Legacy price control adjustment categories.....	85
Conventions.....	86
Reference documents.....	86
Legacy adjustment calculation workbook	87
Part 1 - Determination of component value for legacy gearing level and interest cost adjustments.....	87
Description of the adjustment	87
Restatement or adjustment of values used in the determination of TAR.....	89
Part 2 – Determination of component values for legacy capex incentive scheme adjustments.....	90

Determination of CAR and CRAV values for the TPCR4 period	90
Determination of SOCAR and SOCRAV values.....	92
Determination of SOOIR values	92
Part 3 – Determination of component value for logged up and security costs adjustments relating to the legacy period.....	93
Description of the TPCR4 Logged-up and Security costs	93
Calculation of TPCR4 Logged-up and Security costs adjustment	93
Part 4 – Statement of component values and determination and direction of revised PCFM Variable Values.....	94
Appendix 1 - Glossary	95

Introduction

The GT1 Price Control Financial Handbook (this Handbook) is one of the Price Control Financial Instruments referred to in Special Condition 4A (Governance of GT1 Price Control Financial Instruments) of the Gas Transporter Licence held by National Grid Gas plc in respect of the national gas transmission system. It describes the GT1 Price Control Financial Model ('PCFM') and the Annual Iteration Process for it, by which annual adjustments to the licensee's Base NTS Transportation Owner Revenue and Base NTS System Operation Revenue will be calculated. It also contains the Price Control Financial Methodologies ('the methodologies'), specified in relevant Special 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. The methodologies also describe the intent and effects of revising the various PCFM Variable Values.

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

The PCFM Annual Iteration Process approach has been adopted because:

- it is consistent with the aims of the RIIIO price control, embodying more 'real time' adjustments to financial allowances;
- it handles complex computational interactions between financial adjustments without the need for unwieldy algebra on the face of Special Conditions;
- it provides for consistent treatment of the Totex¹ aspects of the price control;
- it maintains transparency on adjustments to Base NTS Transportation Owner Revenues, since the licence, methodologies, PCFM and variable values will be published; and
- it allows stakeholders to keep abreast of base revenue² levels and to carry out business sensitivity analysis.

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

- (i) the main text of the relevant licence condition(s),
- (ii) the Handbook and constituent methodologies, and
- (iii) the PCFM.

This Handbook refers to both Transportation Owner (TO) and System Operator (SO). Whilst these are normally shown separately, on occasions we may refer to TO only but the reference should be read as applying to both where appropriate.

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 Schedule 1 to the Utilities Act 2000. The Office of the Gas and Electricity Markets Authority ("Ofgem") is the office that supports the Authority.

¹ Total Expenditure – see Glossary

² The PCFM only calculates base revenue and the annual adjustment to base revenues (the MOD term). It does not calculate the total allowed revenues of the licensee, the main difference being certain incentive revenues.

In this Handbook the text refers to the Authority and Ofgem interchangeably.

Other terminology

Throughout this Handbook:

- (a) 'the licence' means the Gas Transporter Licence held by National Grid Gas plc in respect of the NTS;
- (b) 'this Handbook' means the GT1 Price Control Financial Handbook;
- (c) 'Special Condition' means one of the Special Conditions contained in the Gas Transporter Licence held by National Grid Gas plc in respect of the National Transmission System (NTS); and
- (d) 'Price Control Period' means the RIIO-T1 Price Control Period which runs from 1 April 2013 to 31 March 2021.

Where the meaning of other terms used in this Handbook is not clear from the context, they will either be defined/explained in the chapter concerned or in the appended Glossary.

1. The GT1 Price Control Financial Model and the Annual Iteration Process

Overview

1.1 Special Conditions 2A and 3A specify the Transportation Owner (TO) and System Operator (SO) Opening Base Revenue Allowances³ for the licensee for each Formula Year of the Price Control Period, reflecting the Authority's final proposals for the RIIO-T1 price control settlement.

1.2 The GT1 Price Control Financial Model (PCFM) has been designed to calculate amounts to be added to the licensee's Opening Base Revenue Allowances for each Formula Year to derive recalculated base revenue values which reflect the adjustment schemes specified in the licence and detailed in the methodologies in this Handbook. The adjustments fall into three broad categories:

- legacy price control adjustments – the close out of schemes and mechanisms from preceding Price Control Periods;
- financial adjustments covering tax, pension and cost of debt issues; and
- adjustments relating to actual and allowed Totex⁴ expenditure and the Totex Incentive Mechanism.

1.3 The calculations take place under the Annual Iteration Process for the PCFM described below and are manifested as a PCFM output value for the term 'MOD' which is then applied as shown in the simplified formula⁵ below:

Base NTS Transportation Owner Revenue for year t = Opening Base Revenue Allowance for year t + MOD for year t.

1.4 There is a similar term, 'SOMOD' which applies to the System Operator part of the price control. Information relating to the term MOD in this chapter, and in chapter 2 is also relevant to the term SOMOD in the context of the System Operator part of the price control.

Price base

1.5 The PCFM works predominantly in a constant 2009-10 price base. This is consistent with the Opening Base Revenue Allowance values set down in the licence. The value of the term MOD is calculated in 2009-10 prices. Indexation is provided for in the Base NTS Transportation Owner Revenue formula set out in the Special Conditions.

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 ensures that

³ Base revenue amounts are the largest components of the licensee's overall allowed revenues, but the other components, specified in the licence, should be taken into account in any assessment of total revenue allowances.

⁴ See Glossary

⁵ The full formula is shown in Special Condition 2A, paragraph 2A.7

revenue allowance calculations more accurately 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 2009-10 price base used in the PCFM, the following formula will be used:

$$\text{value}_{2009-10} = \text{value}_{\text{nominal price year}} \times \frac{\text{RPI}_{2009-10}}{\text{RPI}_{\text{nominal price year}}}$$

where:

$\text{value}_{2009-10}$	means the deflated value in the 2009-10 price base;
$\text{value}_{\text{nominal price year}}$	means the value in nominal prices, used in price control review information reporting;
$\text{RPI}_{2009-10}$	means the arithmetic average of the Retail Prices Index (all items) figures published by the Office for National Statistics for each calendar month in Formula Year 2009-10 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 Formula Year referred to in the price control review information in question rounded to three decimal places.

Temporal convention

1.8 As indicated above, the MOD term is an amount added to the Opening Base Revenue Allowance figure for each Formula Year t during the Price Control Period to derive a recalculated base revenue value⁶. References in this Handbook to Formula Years are made relative to that usage. For example, in a context where MOD_t applied in the formula for Base NTS Transportation Owner Revenue in 2015-16, a reference in the same context to Formula Year $t-1$ would mean 2014-15 and so on.

The Price Control Financial Model and the Annual Iteration Process

1.9 The PCFM exists as a constituent part of Special Condition 4A (Governance of GT1 Price Control Financial Instruments). It has an input area containing both fixed values and a PCFM Variable Values table. The Base NTS Transportation Owner Revenue figure for each Formula 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.

1.10 At the outset of the Price Control Period, the Base NTS Transportation Owner Revenue figures calculated by the PCFM, using the variable values subsisting at that time, constituted the Opening Base Revenue Allowance values for the licensee. Before the calculation of Opening Base Revenue Allowances were performed, Ofgem commissioned an

⁶ In 2013-14, the first year of the Price Control Period, the licence specifies that the value of MOD is zero.

external audit of the functionality of the PCFM and obtained an audit letter which has been published⁷.

1.11 Subject to paragraph 1.12, by 30 November in each Formula 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 Special Conditions and methodologies referred to in chapters 3 to 11 of this Handbook.

1.12 The last Formula Year in which there will be an Annual Iteration Process for the GT1 Price Control Financial Model is Formula Year 2019-20 for the purpose of determining the value of the term MOD for Formula Year 2020-21. Some financial adjustments provided for under the RIIO-T1 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 Formula Years 2019-20 and 2020-21 will remain outstanding. For the avoidance of doubt, adjustments of this type will be addressed under the RIIO-T2 price control arrangements.

1.13 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 GT1 Price Control Financial Model; and
- (b) 31 October in respect of information submitted by the licensee and used under the Price Control Financial Methodologies.

1.14 In applying the cut-off referred to in paragraph 1.13(b), Ofgem will, through business correspondence, apprise the licensee of any provisionality it has attached to information submissions, which 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.

1.15 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 Formula 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 'screenshot' of the PCFM Variable Values table for the licensee, showing the state of all variable values after the directed revisions, with revised values emboldened.

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

- revised PCFM Variable Values will be inputted in the appropriate Formula Year column of the PCFM Variable Values Table for the licensee;
- the PCFM calculation functions will be re-run;
- all calculated values within the PCFM will be automatically updated, including:
 - the recalculated base revenue figure for the licensee for each Formula Year of the Price Control Period, and
 - the modelled RAV balance for the licensee; and

⁷ <http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/SPpkf.pdf>

- the PCFM will output the value of MOD for Formula Year t for the licensee.

1.17 The output value of MOD_t for the licensee will reflect the difference between the recalculated base revenue figure for the licensee for Formula Year t (in the PCFM) and the Opening Base Revenue Allowance (PU term) set down in the licence. It will also reflect the difference between the recalculated base revenue figures held in the PCFM for Formula 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. The PCFM calculations will apply appropriate Time Value of Money Adjustments⁸ to the calculation of MOD_t, so that the licensee will be in the same economic position as if adjustments to Base NTS Transportation Owner Revenue for years prior to Formula Year t had been notified to it in the Formula Year concerned.

1.18 Changes to Base NTS Transportation Owner 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. A key point to note is that once the value of MOD has been directed for a particular Formula Year, it is not retrospectively changed 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.

1.19 The steps of the Annual Iteration Process are specified in Special Condition 4B (Annual Iteration Process for the GT1 Price Control Financial Model).

1.20 The Authority will issue a direction to the licensee giving the value of MOD_t by 30 November in each Formula Year t-1⁹ 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 1.15. The value of MOD_t in the direction will be stated in £m to one decimal place.

1.21 The deadline of 30 November in Formula Year t-1 for the direction of PCFM Variable Value revisions and for the value of MOD_t reflects:

- the deadline of 31 July in Formula Year t-1 by which the licensee must submit its price control information returns (covering activity in Formula Year t-2) to Ofgem; and
- the need for the licensee to have confirmation of its allowed Base NTS Transportation Owner Revenue for Formula Year t, in time to calculate and issue its indicative charges by 31 December in Formula Year t-1.

1.22 In the unlikely event that the Authority does not direct a value for MOD_t by 30 November in Formula Year t-1, paragraphs 12 to 14 of Special Condition 4B specify that:

- the Annual Iteration Process will stand uncompleted;
- the Authority will complete the Annual Iteration Process as soon as reasonably practicable by directing a value for MOD_t; and
- in the intervening period, the value of MOD_t shall be held to be equal to the value ascertained by:
 - taking a copy of the GT1 Price Control Financial Model in its state following the last completed Annual Iteration Process (excluding the effect of any

⁸ See Glossary

⁹ The first such direction will be given by 30 November 2013.

functional modifications under Special Condition 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 Formula Year equating to Formula Year t ; and
- recording the values of the term MOD_t for the Licensee that is shown as an output value.

1.23 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 month	PCFM Functional change cut-off	Regulatory reporting information cut-off	Proposed PCFM Variable Value revisions	AIP completed and MOD_t directed	Formula Year t in which MOD_t applies
Nov-13	30 Sep 13	31 Oct 13	15 Nov 13	30 Nov 13	2014-15
Nov-14	30 Sep 14	31 Oct 14	15 Nov 14	30 Nov 14	2015-16
Nov-15	30 Sep 15	31 Oct 15	15 Nov 15	30 Nov 15	2016-17
Nov-16	30 Sep 16	31 Oct 16	15 Nov 16	30 Nov 16	2017-18
Nov-17	30 Sep 17	31 Oct 17	15 Nov 17	30 Nov 17	2018-19
Nov-18	30 Sep 18	31 Oct 18	15 Nov 18	30 Nov 18	2019-20
Nov-19	30 Sep 19	31 Oct 19	15 Nov 19	30 Nov 19	2020-21

State of the GT1 Price Control Financial Model

1.24 As mentioned in paragraph 1.9, the PCFM exists as a constituent part of Special Condition 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 which are directly or indirectly dependent upon them; or
- (b) a modification of the PCFM under the procedures set out in Special Condition 4A (Governance of GT1 Price Control Financial Instruments).

1.25 Ofgem will keep a log of modifications to the PCFM and publish this log on its website.

1.26 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 NTS Transportation Owner Revenue positions and to conduct sensitivity analysis; and
- reproduce the calculation of MOD_t by 30 November in each Formula Year t-1.

The Annual Iteration Process is necessarily complex in some respects, but the PCFM is designed to be as 'user friendly' as possible.

1.27 An updated copy of the PCFM will be uploaded to the website by 30 November each year (after each Annual Iteration Process). The electronic file will be named "GT1 Price Control Financial Model PCFM" followed by "November 20XX" (where 20XX represents the calendar year containing the month of November in Formula Year t-1).

Error of functionality in the PCFM

1.28 In the unlikely event that an error of functionality is discovered in the PCFM, the following procedure would be followed:

- the issue would be considered at the earliest opportunity by the GT1 Price Control Financial Model Working Group (see next section) and a corrective modification determined by Ofgem;
- if the functional error had distorted the calculation of a previously directed value of the term MOD, the determined modification would include any adjustments necessary to correct for that distortion on an NPV neutral basis in the next calculation of the term MOD_t ; and
- the procedure in Special Condition 4A for modifications to the PCFM would be followed.

The GT1 Price Control Financial Model Working Group

1.29 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 GT1 Price Control Financial Model Working Group ('the working group') are set out below.

1.30 In accordance with the provisions of Part A of Special Condition 4A (Governance of GT1 Price Control Financial Instruments), 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

1.31 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 Formula Year;
- (ii) to provide, when requested by the Authority, its views on the impact of any proposed modifications to the PCFM in accordance with Part A of Special Condition 4A; and

(iii) to provide such views or recommendations to the Authority with regard to the PCFM as it sees fit.

Composition

1.32 The composition of the group will be:

- Ofgem (chair);
- Ofgem (secretary);
- one or two representatives of the licensee;
- ENA representative (optional).

Timing and duration of the group's work

1.33 The working group's incumbency will run from 1 April 2013 to 31 March 2021.

1.34 The group will meet at least once between 1 January and 31 July during each calendar year, but may meet more frequently if required, in particular in relation to the provision of views on the impact of proposed PCFM modifications (see paragraph 1.31(ii)).

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

1.36 A meeting of the working group will be quorate, for the purpose of expressing a view or recommendation in respect of the PCFM, if at least one representative from Ofgem (which may be the chair), and at least one representative of the licensee are present.

Resources

1.37 Meeting facilities will be provided or coordinated by Ofgem. Ofgem will keep notes of key points of discussion and views expressed at meetings, and of any recommendations made by the working group with respect to the PCFM.

2. The GT1 Price Control Financial Methodologies

2.1 The GT1 Price Control Financial Methodologies set out in this Handbook describe the basis for a range of annual adjustments to the licensee's Opening Base Revenue Allowances for the purposes of the RIIO-T1 price control arrangements.

2.2 The main purpose of each methodology is to set out the way in which one or more PCFM Variable Values are to be revised for the purposes of the Annual Iteration Process for the GT1 Price Control Financial Model (PCFM) under which values of the term MOD_t are calculated (see chapter 1). Any revised PCFM Variable Values determined under the methodologies will replace (over-write) the existing values contained in the PCFM Variable Values Table (blue box) in the PCFM as part of the Annual Iteration Process.

2.3 The methodologies are presented in chapters 3 to 11 of this Handbook, and are referenced in the associated Special Conditions of the licence. As constituent parts of this Handbook, the methodologies are part of Special Condition 4A (Governance of GT1 Price Control Financial Instruments) and are subject to the modification provisions set out in that condition.

2.4 The methodologies are subordinate to the Special Conditions of the licence. If there is any inconsistency between a licence condition and a methodology, then the licence condition takes precedence.

Methodologies in this Handbook

2.5 The PCFM Variable Values to be determined under the methodologies in this Handbook are listed in Table 2.1 below. PCFM Variable Values whose names begin with "SO" relate to the System Operator aspects of the licensee's business

Table 2.1 - PCFM Variable Values

No	PCFM Variable Value	Special Condition	Description	Type of variable value
<u>Specified financial adjustments</u>				
1	EDE SOEDE	5C/6C	Pension Scheme Established Deficit	revenue allowance
2	APFE SOAPFE	5C/6C	Pension Scheme Administration and Pension Protection Fund levy	revenue allowance
3	TTE SOTTE	5C/6C	Tax liability – tax trigger events	revenue allowance
4	TGIE SOTGIE	5C/6C	Tax liability – gearing/interest costs	revenue allowance
5	CDE SOCDE	5C/6C	Allowed percentage cost of debt	Percentage

Totex Incentive Mechanism

No	PCFM Variable Value	Special Condition	Description	Type of variable value
6	ALC	5B	Actual load related capex expenditure	actual expenditure
7	ARC	5B	Actual asset replacement capex expenditure	actual expenditure
8	AOC	5B	Actual other capex expenditure	actual expenditure
9	ACO SOACO	5B/6B	Actual controllable opex expenditure	actual expenditure
10	ANC SOANC	5B/6B	Actual non-operational capex expenditure	actual expenditure
11	ALU	5B	Actual load related capex expenditure (uncertain)	actual expenditure
12	ARU	5B	Actual asset replacement capex expenditure (uncertain)	actual expenditure
13	AOU	5B	Actual other capex expenditure (uncertain)	actual expenditure
14	ACU	5B	Actual controllable opex (uncertain)	actual expenditure
<u>Allowed Totex expenditure adjustments</u>				
15	IAEEPS	5E	Uncertain costs - Enhanced Physical Site Security	allowed expenditure
16	IAEQL	5E	Uncertain costs – Quarry and Loss Development Claim Costs	allowed expenditure
17	IAEIE	5E	Uncertain costs – Industrial Emissions	allowed expenditure
18	IAEPD	5E	Uncertain costs – Pipeline Diversion Costs	allowed expenditure
19	IAEAH	5E	Uncertain costs – One Off Asset Health Costs	allowed expenditure
20	IAENF	5E	Uncertain costs – Network Flexibility Costs	allowed expenditure
21	PTV	5E	Uncertain costs – PARCA Termination Value	allowed expenditure
22	SOIAECA	6D	Uncertain costs – Agency Costs	allowed expenditure
23	SOIAEEPS	6D	Uncertain costs – Enhanced Security Costs	allowed expenditure

No	PCFM Variable Value	Special Condition	Description	Type of variable value
24	EnCI	5F	Incremental obligated entry capacity	allowed expenditure
25	ExCI	5G	Incremental obligated exit capacity	allowed expenditure
26	IRM	5D	Innovation Roll out mechanism	allowed expenditure
<u>Legacy price control adjustments</u>				
27	LAR/ SOLAR	5A/6A	Legacy price control adjustments to allowed revenue	true-up revenue allowance
28	LRAV/ SOLRAV	5A/6A	Legacy price control adjustments to RAV	true-up RAV additions

2.6 Overviews of the specified financial adjustments (rows one to five of Table 2.1) and the methodologies for determining revisions to the associated PCFM Variable Values are contained in chapters 3 to 5 of this Handbook.

2.7 The Totex Incentive Mechanism (rows 6 to 14 in Table 2.1) applies to any overspend or under spend by the licensee against its RIIO-T1 Totex expenditure allowances. An overview of the mechanism and the methodology for determining revisions to the associated PCFM Variable Values is contained in chapter 6 of this Handbook.

2.8 Allowed Totex expenditure adjustments (rows 15 to 26 in Table 2.1) cover a range of Totex adjustment schemes under which allowed expenditure can be adjusted by 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 10 of this Handbook.

2.9 Legacy price control adjustments (rows 27 to 28 in Table 2.1) relate to activities which took place in Price Control Periods prior to RIIO-T1 but in respect of which a financial adjustment may be required because:

- the outturn data for Formula Year 2012-13 was not available when Opening Base Revenue Allowances for the Price Control Period were set;
- cost totals for items subject to true-up or logging-up were not available when Opening Base Revenues Allowances for the Price Control Period were set;
- it is possible for pre-RIIO-T1 expenditure allowances to be adjusted under the terms of a RIIO-T1 special condition; or
- there is an anomalous position, acknowledged by Ofgem and the licensee, that needs to be corrected.

The methodologies for determining revisions to the associated PCFM Variable Values are contained in chapter 11 of this Handbook.

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

2.10 In general terms, the different types of variable value specified in column 5 of Table 2.1 are processed under the Annual Iteration Process for the PCFM in the following ways:

Allowed expenditure

These amounts are modelled, subject to the Totex Capitalisation Rate, as:

- fast money – flowing directly to the recalculated base revenue figure for the Formula Year to which the allowed expenditure relates; and
- additions to the licensee's RAV in the Formula Year to which the allowed expenditure relates, generating a slow money adjustment to allowed revenues through the allowed return and depreciation.

Revenue allowance

These amounts flow directly to the recalculated base revenue figure for the Formula Year to which the adjustment circumstance relates (although there will also be ancillary financial effects under the modelling treatment).

Percentage

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

Actual expenditure

This type of variable value applies to the Totex Incentive Mechanism only and revised values affect fast and slow money calculations for the Formula Years concerned. These values will be obtained from the licensee's Regulatory Reporting Pack (RRP) relating to Formula Year t-2. Since the RRP contains values in nominal prices, these will be deflated to a 2009-10 price base using published RPI data as set out in paragraph 1.7 so that they are consistent with the 2009-10 price base used in the PCFM. The price base calculation will be made prior to direction into the PCFM.

True-up revenue allowance

These amounts will flow directly to the recalculated base revenue figure for Formula Year 2013-14, because they relate to activity levels or outturn values for the Price Control Period prior to RIIO-T1. The PCFM will then spread these amounts over the RIIO-T1 period (on an NPV neutral basis).

True-up RAV additions

These additions to the licensee's RAV generate a slow money adjustment to allowed revenues through the cost of capital return and depreciation.

Consequential adjustments

2.11 During the Annual Iteration Process, appropriate 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 could also be included in recalculated base revenue figures for the Formula Years concerned.

A typical revision

2.12 The GT1 Price Control Financial Methodologies describe the normal Formula Year timing references for each PCFM Variable Value. For example, in relation to the PCFM Variable Values for actual load related capex expenditure (row 6 in Table 2.1) the normal sequence would be:

- activity level takes place in Formula Year t-2;
- activity level reported to Ofgem by 31 July in Formula Year t-1;
- revised PCFM Variable Value used in Annual Iteration Process to take place by 30 November in Formula Year t-1 or as soon as reasonably practical thereafter (the variable value in the column equating to Formula Year t-2 on the PCFM Variable Values Table is the one which is revised, since that is when the activity level took place); and
- incremental change to recalculated revenue position for Formula Year t-2 flows through to value of MOD_t ie it affects base revenue in Formula Year t.

2.13 A number of the Special Conditions provide for PCFM Variable Values to be directed for Formula Years outside the normal sequence. Where this is the case, the procedures are explained in the relevant methodologies in this Handbook.

3. Pension Scheme Established Deficit revenue allowances - financial adjustment methodology

Section 1 - Introduction

3.1 The Opening Base Revenue Allowances for the licensee, specified in table 3.1, include allowances for Pension Scheme Established Deficit (PSED) repair expenditure for each Regulatory Year of the Price Control Period.¹⁰ For all price controls other than RIIO-ED1, they also include Pension Scheme Administration and Pension Protection Fund levy expenditure for each Regulatory Year of the Price Control Period.¹¹

Table 3.1 – Opening Base Revenue Allowances

<i>Price control</i>	<i>Opening Base Revenue Allowances</i>	<i>Set out in the table appended to:</i>
RIIO-GT1	PU and SOPS values	Special Conditions 2A (Restriction of NTS Transportation Owner Revenue), and 3A (Restriction of NTS System Operation Revenue)
RIIO-GD1	PU values	Appendix 1 to Special Condition 1B (Restriction of revenue in respect of the Distribution Network Transportation Activity)
RIIO-ET1	PU and, for NGET, SOPS values	Appendix 1 to Special Condition 3A (Restriction of Transmission Network Revenue) and, for NGET, Appendix 1 to Special Condition 4A (Restriction on System Operator Internal Revenue)
RIIO-ED1	PU values	Appendix 1 to CRC 2A (Restriction of Allowed Distribution Network Revenue)

3.2 These allowances are represented by the opening Pensions Allowance values, specified in table 3.2, held in the Price Control Financial Model (PCFM) Variable Values Table for the licensee contained in the PCFM specified in the box below and are expressed in the price base specified in the box below. Opening Pensions Allowance values are based on modelling assumptions and parameters applicable at the outset of the Price Control Period.

Table 3.2 – Pension allowance values

<i>Price control</i>	<i>Pensions Allowance values</i>	<i>Opening values as at</i>	<i>PCFM</i>	<i>Price base used</i>
RIIO-GT1	EDE, APFE, SOEDE and SOAPFE values	1 April 2013	GT1 Price Control Financial Model	2009-10 prices
RIIO-GD1	EDE and APFE values	1 April 2013	GD1 Price Control Financial Model	2009-10 prices
RIIO-ET1	EDE, APFE, SOEDE and SOAPFE values	1 April 2013	ET1 Price Control Financial Model	2009-10 prices
RIIO-ED1	EDE values	1 April 2015	ED1 Price Control Financial Model	2012-13 prices

¹⁰Ongoing Pension Service Costs are included as an element of labour costs and are outside the scope of this chapter.

¹¹ For RIIO-ED1, ongoing Pension Service Costs included as an element of labour costs also include pension scheme administration and Pension Protection Fund levy costs.

The allowance levels will be updated during the Price Control Period by revising Pensions Allowance values (specified in the box in paragraph 3.2) 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 Pensions Allowance values
- the expected timing of revisions, and
- the effect on the licensee’s allowed revenue of revising Pensions Allowance values for the Annual Iteration Process.

3.3 In the context of Pension Scheme Established Deficit repair expenditure we refer to ‘allowances’ rather than ‘allowed expenditure’. This is because Pensions Allowance values are included in full in recalculated base revenue figures in the PCFM under the Annual Iteration Process.

3.4 The Price Control Period ends on the dates set out in table 3.3, but Pensions Allowance values will be determined having regard to further PSED repair periods determined under the methodology set out in this chapter (and the associated Price Control Financial Instrument licence condition).

Table 3.3 - RIIO price control periods

<i>Price control</i>	<i>Start of control period</i>	<i>End of control period</i>
RIIO-GT1	1 April 2013	31 March 2021
RIIO-GD1	1 April 2013	31 March 2021
RIIO-ET1	1 April 2013	31 March 2021
RIIO-ED1	1 April 2015	31 March 2023

Price control pension principles

3.5 The Authority’s price control pension principles are set out in Ofgem’s guidance note on price control pension principles under RIIO issued as Appendix 3 to the decision letter, ‘Decision on the Authority’s policy for funding Pension Scheme Established Deficits’ dated 7 April 2017.

Section 2 – General provisions

Pension Scheme Established Deficit

3.6 For the purposes of the financial adjustments conditions specified in table 3.4 and this chapter,

- (a) The term cut-off date refers to the date specified in the box below
- (b) the term Pension Scheme Established Deficit (PSED), or “established deficit”, means an amount derived as the value of the liabilities within a defined benefit pension scheme (or schemes) sponsored (or co-sponsored, eg if part of a group scheme) by the licensee expressed as a positive number, less the corresponding assets, where those assets and liabilities are:
 - attributable to the licensee’s regulated business specified in table 3.4, and
 - attributable to pensionable service up to and including the cut-off date.

Table 3.4 – Financial adjustment conditions and cut-off dates

<i>Price control</i>	<i>Financial adjustments conditions</i>	<i>Licensee's regulated business</i>	<i>Cut-off date</i>
RIIO-GT1	Special Condition 5C (Specified financial adjustments – NTS Transportation Owner), 6c (Specified financial adjustments – NTS System Operator)	Transportation business	31 March 2012
RIIO-GD1	Special Condition 3C (Specified financial adjustments)	Transportation business	31 March 2013
RIIO-ET1	Special Condition 6D (Specified financial adjustments – Transmission Owner), 7C (Specified financial adjustments – System Operator)	Transmission business	31 March 2012
RIIO-ED1	CRC 3C (Specified financial adjustments)	Distribution business	31 March 2010

3.7 Where relevant, the PSED is further divided into parts of the licensee's regulated business specified in table 3.5 in accordance with the Authority's pension deficit allocation methodology.

Table 3.5 – PSED licensee split

<i>Price control</i>	<i>Split between</i>
RIIO-GT1	Transportation Owner (TO) and System Operator (SO)
RIIO-GD1	Not relevant
RIIO-ET1	For NGET, Transmission Operator (TO) and System Operator (SO)
RIIO-ED1	Not relevant

3.8 The definition set out in paragraph 3.6(b) applies even if the value derived is a negative amount (a surplus position) and may be described as an "established surplus".

3.9 On a triennial basis (see Table 3.7) the licensee provides the Authority with:

- a Scheme Valuation Data Set comprised of:
 - 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
 - each scheme's statement of investment principles, and
 - any other information reasonably required, and subsequently,
- separate Pension Deficit Allocation Methodology tables.

3.10 The licensee's PSED will be determined using:

- (a) the triennial actuarial valuation of the pension scheme or schemes that contain the PSED described in paragraph 3.6(b)
- (b) the allocation of assets and liabilities in the scheme(s) referred to in subparagraph (a) to the PSED using the Pension Deficit Allocation

Methodology¹²; the effective date for revised allocations at each triennial actuarial valuation take effect in the year rr, and

- (c) the Reasonableness Review with respect to the price control pension principles which could, exceptionally, result in adjustments to the PSED figure on account of errors in methodology or data.

Asset-backed funding arrangements

3.11 The licensee may choose to enter into asset-backed funding arrangements with pension scheme trustees, either directly or indirectly through related parties. Such arrangements might include a range of alternative funding arrangements, for example, mechanisms involving contingent assets or loan notes benefitting relevant pension schemes.

3.12 Any asset-backed funding arrangements must be fully compliant with all conditions, for example relating to the ring fence, in the licensee's licence (except where appropriate consent has been granted under the terms of a condition).

3.13 Notwithstanding that an arrangement may be fully compliant with licence conditions, the licensee is encouraged to provide information on any such mechanism or prospective mechanism to the Authority at the earliest opportunity. In general, the Authority would encourage asset-backed funding arrangements that would facilitate the return of funds to consumers in the event that a pension scheme deficit turns out to be smaller than anticipated.

3.14 Asset-backed funding arrangements would in general be disregarded in the determination of revised Pensions Allowance values because allowances are provided for PSED repair and not to fund ancillary arrangements per se. However, such arrangements would be relevant in any proposal by the licensee for Pensions Allowance values under the methodology set out in Section 3 of this chapter.

Pension Scheme Administration and PPF levy

3.15 Where relevant, for the purpose of the conditions specified in table 3.6 and this chapter, Pension Scheme Administration means 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, the provision of information to scheme members, the calculation and payment of benefits and liaison with tax and regulatory authorities, and the preparation of valuations. It does not include investment management fees which are remunerated by deduction from investment returns or costs which are the responsibility of the licensee, such as the costs of advisors to the licensee on managing or advising it on any and all aspects of the its relationship with the trustees including recovery plans.

Table 3.6 – Relevant licence condition

RIIO-GT1	Special Conditions 5C and 6C
RIIO-GD1	Special Condition 3C
RIIO-ET1	Special Conditions 6D and 7C
RIIO-ED1	Not relevant

¹² <https://ofgem.gov.uk/publications-and-updates/notice-modify-regulatory-instructions-and-guidance-held-network-operators>

3.16 Pension scheme administration expenditure refers to payments made by the licensee to cover the proportion of Scheme Administration Costs attributable to the licensee's regulated business.

3.17 Where relevant, these two items are apportioned between the parts of the licensee's regulated business specified in the box below paragraph 3.7.

Costs and adjustments outside the scope of this chapter

Pension costs for service after the cut-off date

3.18 The following costs are dealt with as Totex expenditure in the relevant price control and therefore fall outside the scope of this chapter:

- (a) pension costs associated with employee service after the cut-off date
- (b) accrued liability costs associated with employee service after the cut-off date (Pension Scheme Incremental Deficit costs), and
- (c) For licensees subject to RIIO-ED1, pension scheme administration costs and Pension Protection Fund levy costs.

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

3.19 This section only relates to licensees subject to the RIIO-ED1 price control. Under the terms of the price control that preceded the RIIO-ED1 Price Control Period (the DPCR5 Price Control), a relevant 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.

3.20 Where relevant, any outstanding adjustment in respect of the true-up described in paragraph 3.19, 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 adjustment set out in chapter 15 section 2(i) of the RIIO-ED1 handbook.

True-up for pension payments by a relevant licensee in the GDPCR1 price control period

3.21 For the price control period preceding RIIO-GD1 (the GDPCR1 price control), a true-up was applied to the difference between the level of pension costs included in the licensee's allowed revenues, and the actual payments made by the licensee to the pension scheme.

Section 3 – Methodology for revising Pensions Allowance values

Overview

3.22 The licensee's Pensions Allowance values may be revised during the Price Control Period to reflect:

- (a) information contained in pension scheme actuarial valuation reports provided by the licensee to the Authority
- (b) the licensee's updated PSED (defined in paragraph 3.6)
- (c) information on the history of actual amounts received by the relevant pension scheme(s) in respect of PSED repair payments, attributable to the licensee, contained in price control review information submitted to the Authority
- (d) where relevant, pension scheme administration and PPF levy costs information contained in the licensee's price control review information submitted to the Authority
- (e) proposals made by the licensee for Base Annual PSED Allowances and payment history allowances
- (f) asset-backed funding arrangements associated with proposals referred to in subparagraph (e)
- (g) the outcomes of Reasonableness Reviews (see paragraph 3.58) and
- (h) and any pension contribution holiday attributable in whole or in part to the existence of an established surplus.

3.23 The licence conditions relevant to this section specified in table 3.9 requires the Authority to determine annually whether any Pensions Allowance values should be revised. However, the intention is that the values will only be revised periodically in light of triennial actuarial valuations of the relevant pensions schemes. The timetable for these is set out in Table 3.7. The timetable for the Authority's determination of revised Pensions Allowance values, following Reasonableness Reviews, is set out in Table 3.8. It may, however, be necessary to revise Pensions Allowance values at different times if, for example:

- (a) a scheme valuation is delayed, or
- (b) the completion of a Reasonableness Review (see paragraph 3.58) has been delayed.

3.24 The revision of Pensions Allowance values at a different time because of the delayed completion of a Reasonableness Review will not prevent the revision of Pensions Allowance values on the two occasions referred to in paragraph 3.23 with respect to adjustments that can be taken into account at those times.

Table 3.7 - Expected timetable for Pensions Allowance value revisions

Pension scheme valuation date	Submission of Scheme Valuation Data Set	Pension Deficit Allocation Methodology information provided	Completion of Reasonableness Review	Direction of revised Pensions Allowance values see note
31 March 2016	22 August 2017		10 November 2017 (rr = 2017/18)	30 November 2017
31 March 2019	31 July 2020	See Rows 4(a) and 4(b) of table 3.8	31 October 2020 (rr = 2020/21)	30 November 2020
31 March 2022	31 July 2023		31 October 2023 (rr = 2023/24)	30 November 2023

Note: Information relating to the defined benefit pension scheme valuation prior to the end of a control period may be taken into account in the setting of opening Pensions Allowance values for the subsequent price control. This table specifies the expected timetable, but some dates may be subject to variation as governed in Table 3.8.

3.25 Licensees whose scheme triennial valuation dates differ to those shown in the first column of Table 3.7 will be required to provide either a full valuation 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 the Authority’s Pension Deficit Allocation Methodology.

3.26 As stated in paragraph 3.23, the Authority will direct revised Pensions Allowance values at other times, if that is necessary to reflect any revised timetable of information availability or process completion. However, in those circumstances, Pensions Allowance values would still be determined in a way that is consistent with the procedures set out in this chapter.

Determination of revised Pensions Allowance values

3.27 Revised Pensions Allowance values directed by the Authority will be expressed in the price base referred to in paragraph 3.2. The Authority’s calculations and the calculations supporting any proposals made by the licensee should be expressed in constant price terms accordingly.

3.28 Revised Pensions Allowance values will be determined on each occasion using the process set out in Table 3.8 and explained further in paragraphs 3.29 to 3.54.

Base Annual PSED Allowances

3.29 After each triennial review, in accordance with the timetable set out in Table 3.8 below, the licensee should set out its proposal for Base Annual PSED Allowances after taking account of the following paragraphs. Base Annual PSED Allowances represent how consumers will fund the established deficit as evaluated at the last triennial review.

3.30 Accordingly, the licensee should set out its calculations of the indicative further PSED repair period, the indicative base annual PSED allowance and its proposal for Base Annual PSED Allowances as specified in paragraphs 3.31-3.54.

Indicative further PSED repair period

3.31 The indicative further PSED repair period represents a number of years (not necessarily a whole number) from the valuation date specified in Table 3.7 and is ascertained by taking the number of years that is the lower of:

- (a) the value irp , where irp is calculated using the following formula:

$$irp = \frac{-LN\left(1 - LN(1 + DR) \times \frac{PSED}{EBAPA}\right)}{LN(1 + DR)}$$

where:

PSED is defined in paragraph 3.6, expressed in constant price terms in accordance with paragraph 3.27

LN returns the natural logarithm of the value to which it is applied

DR is an annual real (inflation-adjusted) discount rate specified in or justified with reference to the licensee's Scheme Valuation Data Set (established in accordance with Principle 4 - see paragraph 3.5), and

EBAPA is an average of the Base Annual PSED Allowance expressed in constant price terms in accordance with paragraph 3.27 for years $rr-1$ and rr , where the year rr is the regulatory year specified in Table 3.7 for the relevant Reasonableness Review.

and

- (b) 15.

In the event that the PSED is negative, irp is set to zero.

3.32 For example, if the discount rate was 2%, the PSED was £1m and the EBAPA value was £100k, then the Indicative further PSED repair period would be 11.14 years, being the lower of:

- (a) 11.14, calculated under the formula at paragraph 3.31(a), and
 (b) 15.

Indicative Base Annual PSED Allowance

3.33 The indicative amount for the Base Annual PSED Allowance, IBAPA, is zero if PSED is negative but is otherwise ascertained using the following formula:

$$IBAPA = PSED \frac{LN(1 + DR)}{1 - (1 + DR)^{-irp}}$$

where:

irp is the indicative further PSED repair period ascertained under paragraph 3.31.

3.34 For example, if the PSED was £1m in 2012/13 prices, the Indicative further PSED repair period was 11.14 years, and the discount rate was 2%, the indicative Base Annual PSED Allowance would be £100k. IBAPA will equal EBAPA unless irp is limited to 15.

Proposal for Base Annual PSED Allowances

3.35 Subject to its consideration of the factors set out in subparagraphs (a) to (d) below, the licensee may propose allowances in line with the Indicative Base Annual PSED Allowance calculated under paragraph 3.33. The licensee should propose, with its supporting rationale, an alternative profile of Base Annual PSED Allowances over a repair period that may be shorter or longer than the period determined by paragraph 3.31 if it

considers that the indicative Base Annual PSED Allowance calculated by paragraph 3.33 above either:

- (a) does not fairly represent a profile of repair payments that can be agreed with the scheme trustees,
- (b) following consultation with the Authority, does not appropriately protect the interests of consumers,
- (c) derives from an indicative further PSED repair period ascertained under paragraph 3.31 which is less than 5 years, or
- (d) is otherwise inappropriate or inequitable.

3.36 The alternative proposal under paragraph 3.35 should represent a profile of Base Annual PSED Allowances, $PBAPA_y$ for each year y subsequent to the valuation date specified in Table 3.7, such that

$$\sum_{y \geq rr-1} \frac{PBAPA_y(1 + f \cdot DR)}{(1 + DR)^{y+2-rr}} \leq PSED + LO - ABV$$

where:

$$f = \frac{1}{LN(1 + DR)} - \frac{1}{DR}$$

LO means the value of any assets included in the PSED valuation that represent an obligation from the licensee for future payments (or other consideration) to the relevant scheme(s) under an arrangement agreed between the licensee and the scheme(s)

ABV means the value of assets as at the PSED valuation date held under asset-backed arrangements that is fairly attributable to funding by the licensee out of negative cumulative payment history variances (see paragraph 3.38) up to the valuation date and where those assets are available under an agreement with pension scheme trustees only for future funding of an established deficit or for recovery on behalf of consumers, for example in the event that pension surpluses arise. Where relevant, the value should be determined using a methodology for the evaluation of ABV and ABC (see paragraph 3.41) agreed in writing by the Authority at or close to the inception of an arrangement, the Authority giving its reasons why it considers the methodology furthers the interests of consumers. In the absence of any such agreement, the licensee may make its own estimate of the value of ABV, which would have a symmetrical effect on the calculations in paragraph 3.41.

$PBAPA_y$ for years $rr-1$ and rr are the Base Annual PSED Allowances determined by the Authority for those years, and

“.” is a symbol for multiply (the mathematical operation of multiplication)

Payment history allowances

3.37 The determination of revisions to Pensions Allowance values for the licensee will include payment history allowances, which may be positive or negative, relating to the cumulative variance between the licensee’s PSED repair payments and its historical allowances for PSED repair prior to the PSED valuation date. The payment history prior to a triennial valuation will affect that valuation, and thus the Base Annual PSED Allowances needed to fund it as described in paragraph 3.29. Payment history allowances ensure that customers are properly compensated if the licensee has, prior to the triennial valuation, paid less in funding the PSED than it has received from consumers, and that companies do not lose out if they have paid more.

3.38 The cumulative pre-valuation payment history variance value at the end of the Reasonableness Review year, V_{rr} , is ascertained using a method permitted by paragraph 3.40 or using the following formula:

$$V_{rr} = LTU + \sum_{y=pc01}^{rr-2} \left(\frac{(D_y - E_y)(1 - CT_y)}{(1 + g_y \cdot hDR_y)(1 - CT_{rr+1})} \prod_{t=y}^{rr} (1 + hDR_t) \right) - \sum_{y=rr-1}^{rr} \left(\frac{PH_y(1 - CT_y)}{(1 + g_y \cdot hDR_y)(1 - CT_{rr+1})} \prod_{t=y}^{rr} (1 + hDR_t) \right)$$

where:

LTU is the legacy true-up value specified in paragraph 3.39, where relevant pco1 means the first regulatory year subsequent to the cut-off date

rr is the regulatory year specified in Table 3.7 for the relevant Reasonableness Review

D_y means the net sum of the following, which may be positive or negative, expressed in constant price terms in accordance with paragraph 3.27:

- amounts received by the relevant pension scheme(s) in respect of PSED repair during the course of year y , including amounts received in respect of an obligation accounted for in the LO term in paragraph 3.36
- less any amounts directly or indirectly returned to the licensee or a related undertaking by the relevant pension scheme(s) during the course of year y under an arrangement agreed between the licensee and the scheme(s),
- less the amount by which ongoing pension contributions (for active members) have been reduced on account of an established surplus as described in paragraph 3.45.
- plus any amounts determined by the Authority as advisory fees or other costs relating to the development or implementation of a pensions initiative, eg a contingent asset arrangement, following a review of evidence submitted by the licensee.

PH_y is the payment history allowance determined by the Authority at a preceding reasonableness review or price control review, in accordance with row 6 of Table 3.8 or otherwise, and included in the licensee's revenue allowances for year y

E_y means the licensee's Base Annual PSED Allowances plus payment history allowances, PH_y (which may be positive or negative), included in revenue allowances for the year y expressed in constant price terms in accordance with paragraph 3.27. E_y excludes any adjustment factor value AF but includes any prior period history allowances included in revenue allowances in the period since pco1 relating to any true-up value in LTU and any other relevant allowances, including contingent asset allowances. With the written agreement of the Authority, the licensee may adjust prior period history allowances to exclude those attributable to legacy true-up values excluded from the LTU term in accordance with paragraph 3.39.

CT_y means the actual or, in the case of CT_{rr+1} , prospective rate of Corporation Tax applicable to the licensee in year y

\prod means the product of the series in the brackets for the specified range;

for example:

$$\prod_{t=rr-2}^{rr} (1 + hDR_t) = (1 + hDR_{rr-2})(1 + hDR_{rr-1})(1 + hDR_{rr})$$

hDR_y means the discount rate values under any alternative discounting basis determined by the Authority in the relevant reasonableness review for year y (see row 6(f) of table 3.8) or, where no alternative discounting basis has been specified, the Vanilla Weighted Average Cost of Capital applicable to the licensee during year y

$$g_y = \frac{1}{2 + hDR_y}$$

3.39 Where relevant,

- (a) Subject to subparagraph (b), the legacy true-up value, LTU, represents the present value as at the end of the Reasonableness Review year of any arrangement or arrangements previously agreed or determined by the Authority for the post cut-off true-up of the licensee's pension deficit payment history or true-up of other pension-related costs prior to the cut-off date.
- (b) With the Authority's written agreement, the licensee may attribute payment history allowances to legacy true up values identified in subparagraph (a) on a present value neutral basis and exclude both attributable payment history allowances from the calculation of E_y in paragraph 3.38 and the attributable LTU value from the LTU term applied in paragraph 3.38.

3.40 The licensee may choose to present a truncated calculation of the term V_{rr} specified in paragraph 3.38, on a basis that is demonstrably consistent with the formula specified in paragraph 3.38. Such a truncated calculation would include cumulative pre-valuation payment history variance values calculated for a previous reasonableness review and rolled forward for payment history variances arising since the valuation date relevant to that earlier review, discount rates and, where relevant, changes in corporation tax rates.

3.41 The licensee should propose payment history allowances for future years y , PPH_y , such that:

$$\sum_{y \geq rr+1} \left(PPH_y (1 + h_y \cdot PhDR_y) \prod_{t=rr+1}^y \left(\frac{1}{1 + PhDR_t} \right) \right) \leq V_{rr} + ABC$$

$PhDR_y$ means the discount rate for payment history allowances for year y proposed by the licensee, or the rate forecast for year y according to the licensee's proposed basis of determining discount rates, in either case framed in accordance with paragraph 3.42. Such a proposal may relate $PhDR_y$ to the value of DR , the value of $WACC$ or rates of return on asset-backed arrangements. In the absence of any proposal, $PhDR_y$ is $WACC_{rr+1}$.

ABC means the deemed present value as at the end of the Reasonableness Review year of the cumulative funding of asset-backed arrangements through negative cumulative payment history variances up to the valuation date and where those assets are available under an agreement with pension scheme trustees only for future funding of an established deficit or for recovery on behalf of consumers, for example in the event that pension surpluses arise. Where relevant, the value should be determined using a methodology for the evaluation of ABV (see paragraph 3.36) and ABC agreed in writing by the Authority at or close to the inception of an arrangement, the Authority giving its reasons why it considers the methodology furthers the interests of consumers. In the absence of any such agreement, ABC should be set at the present value

of ABV specified in paragraph 3.36 as at the end of the reasonableness review year, after applying appropriate discount rates (generally hDR_y).

$$h_y = \frac{1}{2 + PhDR_y}$$

Framing proposals for Base Annual PSED Allowances and payment history allowances

3.42 In framing its proposals under paragraphs 3.35 and 3.41, the licensee should set out why it considers its proposals appropriately protect the interests of consumers. The licensee's explanations should, in each case where appropriate, refer to the prevailing level of Base Annual PSED Allowances, the profile of repair payments that can be agreed with the scheme trustees, how it has sought to maintain confidence of scheme trustees in the covenant with the licensee in support of such agreement, how it has sought to minimise the risk of stranded surplus, how it has sought to balance the interests of existing and future consumers, how it has sought to manage the volatility of revenues and financial ratios and any asset-backed arrangements that are intended to protect the consumer interest. The licensee's explanations should, where appropriate, refer to or be consistent with information it submitted in accordance with Table 3.8, row 3 and 4(b), part (b).

Established surpluses

3.43 The existence of an established surplus indicates that consumers have funded the relevant pension scheme more than it would now appear was necessary. One of the objectives behind our policy is to protect the consumer interest by encouraging strategies that ensure any over-funding can be returned to consumers and that minimise the risk of a surplus being unrecoverable for consumers or being used, for example to de-risk the scheme, in a way that would not otherwise be in the consumer interest. Strategies may include careful management of deficit funding, the use of asset backed funding arrangements as described from paragraph 3.11, and the use of pension contribution holidays, especially when a scheme still has a significant number of active members.

3.44 In the event that an established surplus arises, it may be appropriate for a licensee and the pension scheme trustees to agree a programme of pension contributions below the level that would otherwise be necessary to fund the accruals of benefits for active members and any deficit relating to post cut-off service. These reduced contributions can be called a contribution holiday.

3.45 It is important that a pension contribution holiday, to the extent that it is attributable to an established surplus, is returned to consumers. To achieve this, the Authority will make amendments to the Regulatory Instructions and Guidance, RIGs, that will specify methodologies to determine whether there has been a reduction in the pension contributions in a year as a consequence of an established surplus and the amount of any such reduction. This would be accounted for as a negative contribution to the D_y term, which could make the D_y term negative, in paragraph 3.38. To ensure symmetry, the amendments will also specify the inclusion of the same amount as a positive value in Totex (actual Totex), supplementing the actual net contributions that were paid in that year.

3.46 The purpose of these amendments to the RIGs will be to ensure that the identification and attribution of reduced payments to an established surplus are fair and symmetrical to the identification and attribution of increased payments (ie deficit funding) to an established deficit under the Pensions Deficit Allocation Methodology. This will ensure that the interests of consumers, who underwrite the downsides, are protected in the event of upsides.

Adjustment factors and Reasonableness Reviews

3.47 After receiving the whole (or substantially the whole) of the licensee's Scheme Valuation Data Set (see paragraph 3.9) and its proposals for Base Annual PSED Allowances and Payment History Allowances in respect of each defined benefit pension scheme, the Authority will review the way in which the licensee has:

- (a) formulated and justified its proposals for Base Annual PSED Allowances and Payment History Allowances
- (b) engaged with pension scheme trustees and managers to advocate for the interest of consumers with respect to the PSED, recognising the responsibilities of trustees and the regulatory framework they are subject to, recognising the uncertainties that exist in the PSED valuation and recognising the strength of the employer's covenant
- (c) responded to any recommendations set out by the Authority in preceding Reasonableness Reviews
- (d) otherwise followed good practice, informed by practice in the regulated and broader private sectors, taking into account statutory and regulatory factors affecting the relevant pension schemes and the specific circumstances of each scheme, in promoting consumer interests with respect to the PSED.

3.48 The review referred to in paragraph 3.47 is termed the Reasonableness Review for the purposes of this methodology. Having completed the review, the Authority will consider whether there is any case for:

- (a) making corrections to the licensee's calculations in respect of its proposals for Base Annual PSED Allowances and Payment History Allowances due to data or methodological errors
- (b) determining Base Annual PSED Allowances and Payment History Allowances with different profiles (while maintaining the same overall prospective values) compared with those proposed by the licensee under paragraphs 3.35 and 3.41
- (c) continuing to apply, modifying the scope or modifying the effect of any existing adjustment factors affecting Pensions Allowance values that were put in place following a prior Reasonableness Review, and
- (d) applying any new adjustment factor under paragraph 3.50 below.

3.49 The Authority will only make a determination in respect of paragraph 3.48(b) if it considers the licensee's proposals under paragraphs 3.35 and 3.41 do not appropriately protect the interests of consumers, taking into account statutory and regulatory factors affecting the relevant pension schemes, which may relate to levels of uncertainty in the assumptions adopted in the valuation of the PSED and consequently a concern that the licensee's proposals do not adequately balance the interests of existing and future consumers.

3.50 Consistent with its price control pensions Principle 3, the Authority will only apply adjustment factors referred to in paragraph 3.48(c) and (d) to the extent necessary to disallow any excess costs arising from a material failure in the licensee's responsibility for taking good care of entrusted pension scheme resources on behalf of consumers. New adjustment factors should only arise in the following limited circumstances:

- (a) where the Authority has established the licensee's recklessness, negligence, fraud or breach of fiduciary duty towards consumers, such as failures in its participation in the governance of a pension scheme to correct for poor governance or management of the scheme's resources, including any undue risk of a stranded surplus

- (b) inequitable charges for consumers arising from using the WACC to account for the time value of money in ascertaining the cumulative payment history variance under paragraph 3.38 for any materially accelerated PSED payments that would otherwise have been determined with reference to the discount rate specified in the licensee's Scheme Valuation Data Set
- (c) the licensee's failure to respond adequately to any recommendations set out by the Authority in preceding Reasonableness Reviews

3.51 Any modification to the effect of existing adjustment factors affecting Pensions Allowance values that were put in place following a prior Reasonableness Review will be made after taking equitable account of the time value of money involved, in general with reference to hDR_y.

3.52 Before deciding to make determinations referred to in 3.48 (b), (c) or (d), the Authority will consult with the licensee, giving its reasons with reference to paragraphs 3.49 and 3.50 and to the Pensions Principles referred to in paragraph 3.5.

3.53 After, considering any representations made by the licensee, the Authority will:

- (a) notify the licensee of its decision
- (b) set out the matters, referred to in paragraphs 3.49 and 3.50, that have led to its decision, and
- (c) Set out the basis on which it considers any adjustment factors referred to in 3.48(c) or (d) might be discontinued at the next Reasonableness Review.

3.54 Where, after consulting with the licensee and giving due weight to the licensee's representations, the Authority considers the licensee is not following good practice which would have the effect of promoting consumer interests with respect to the PSED, the Authority may set out recommendations to the licensee for it to adopt before the next reasonableness review provided:

- (a) the Authority can reasonably establish that adopting the recommendations would not conflict with statutory and regulatory factors affecting the relevant pension schemes
- (b) the Authority takes into account the relative duties of the licensee and the pension scheme trustees and the extent to which the licensee is only able to influence trustee decisions
- (c) the Authority can reasonably establish that adopting the recommendations would be in the interest of consumers and would not disproportionately impact the licensee
- (d) the Authority reasonably believes it is practical for the licensee to adopt the recommendations.

Section 4 – Pension scheme administration and PPF levy allowances

3.55 This section is not relevant to licensees subject to RIIO-ED1.

3.56 The licensee's actual costs in respect of scheme administration costs and PPF levies will be reported under the annual Regulatory Reporting cycle in accordance with the following licence conditions:

- RIIO-GT1 and GD1 – Standard Special Condition A40 (Regulatory Instructions and Guidance).
- RIIO-ET1 – Standard Special Condition B15 (Regulatory Instructions and Guidance)

3.57 Revised APFE and, where relevant, SOAPFE values will be determined in accordance with the steps set out below

- (i) The actual aggregated Pension Scheme Administration and PPF levy expenditure reported by the licensee in its price control review information submissions for each of the years rr-3, rr-2 and rr-1 subsequent to 31 March 2013 will be obtained.
- (ii) The expenditure amounts in (i) will be deflated to the relevant price base, specified in the box below paragraph 3.2, using actual RPI data.
- (iii) The aggregate price control allowances for Pension Scheme Administration and PPF levy expenditure, for each of APFE and SOAPFE if relevant, for each of those years is obtained, to which is added the annual adjustment threshold amount of £1m.
- (iv) For each of those years, if the amount referred to in step (iii) is exceeded by the corresponding amount in step (ii), the excess amount only will be added to the pre-existing price control allowance.
- (v) If the amount at (ii) is less than the corresponding pre-existing price control allowance value at (iii), then no revision to the price control value will be made.
- (vi) The excess at (iv) will be added to the pre-existing APFE and, where relevant, SOAPFE values to determine the revised APFE and SOAPFE values for years rr-3, rr-2 and rr-1.
- (vii) The Authority will review Pension Scheme Administration and PPF levy costs based on actual costs incurred in previous years and known changes to the PPF levies advised by the PPF and, subject to them being considered efficient, reset the existing constituent costs; and the combined existing APFE values for years rr+1, rr+2 and rr+3.

Section 5 – Reasonableness reviews and revising Pensions Allowance values

3.58 The timetable for revising Pensions Allowance values and for a reasonableness review in a year specified in Table 3.7 is set out in Table 3.8.

Table 3.8 - Process for revising Pensions Allowance values and for a reasonableness review

Row	2017 reasonableness review, due by*	Subsequent reasonableness reviews, due by*	Event
1	22 August 2017	31 July	The Authority will obtain the licensee’s Scheme Valuation Data Set, where relevant separately for its TO and SO activities, for the relevant valuation of the licensee’s defined benefit pension schemes as at the date indicated in Table 3.7 and commence a Reasonableness Review.
2	31 July 2017	31 July	The Authority will be in receipt of price control review information from the licensee for Regulatory Years up to and including the last complete Regulatory Year.
3	31 August 2017	31 August	<p>The licensee will submit:</p> <ul style="list-style-type: none"> (a) Explanations and supporting evidence where appropriate for how it has interpreted the interest of consumers to inform its participation in the governance of pension schemes, including setting investment and risk strategies (b) Explanation of how it has responded to any recommendations set out by the Authority in preceding Reasonableness Reviews.
4(a)	31 August 2017	31 August	<p>The licensee will submit, where relevant separately for its TO and SO activities:</p> <ul style="list-style-type: none"> (a) Pension Deficit Allocation Methodology information and its PSED figure as at the relevant valuation date indicated in Table 3.7 showing the movements from the previous valuation date
4(b)	29 September 2017	14 September	<p>The licensee will submit:</p> <ul style="list-style-type: none"> (a) Its proposals where applicable under paragraphs 3.35 and 3.41 together with supporting explanation framed in light of paragraph 3.42 for <ul style="list-style-type: none"> ▪ Base Annual PSED Allowances, PBAP_y, ▪ payment history allowances, PPH_y, ▪ any proposed prospective discounting basis for payment history variances, reflected in PhDR_y

Row	2017 reasonableness review, due by*	Subsequent reasonableness reviews, due by*	Event
			(b) Explanation of how it has engaged with pension scheme trustees and managers to advocate for the interest of consumers with respect to the PSED. See also paragraph 3.42.
5	13 October 2017	30 September	<p>The Authority will provisionally decide, where relevant separately for the licensee’s TO and SO activities, whether:</p> <ul style="list-style-type: none"> (a) Any change should be made to the licensee’s proposals for Base Annual PSED Allowances and payment history allowances for reasons anticipated in paragraph 3.48 (a) and (b) and 3.49 (b) To apply an existing adjustment factor, introduce a new adjustment factor or extend the scope or effect of an existing adjustment factor for reasons anticipated in 3.49. Adjustment factor can be either upwards or downwards. (c) To set out any recommendation to the licensee to adopt good practice before the next reasonableness review under paragraph 3.54 <p>The Authority will give notice of any such provisional decisions to the licensee, allowing 14 days for representations to be made.</p>
6	10 November 2017	31 October	<p>The Authority will complete its Reasonableness Review, where relevant separately for the licensee’s TO and SO activities:</p> <ul style="list-style-type: none"> (a) Determine the values BAP_{A_y}, representing the Base Annual PSED Allowances, for each of the three years following the reasonableness review, giving reasons for any departure from those proposed in paragraph 3.35 (b) Determine the values PH_y, representing the payment history allowances, for each of the three years following the reasonableness review, giving reasons for any departure from those proposed in paragraph 3.41 (c) Determine the values AF_y, representing any adjustment factors, for each of the three years following the reasonableness review

Row	2017 reasonableness review, due by*	Subsequent reasonableness reviews, due by*	Event
			<p>(d) Compute and determine the Pensions Allowance values for each of the three years following the reasonableness review, such that:</p> $EDE_y \text{ or } SOEDE_y = BAPA_y + PH_y + AF_y$ <p>(e) Where relevant, determine APFE and SOAPFE values in accordance with the steps set out in Section 4</p> <p>(f) Set out any recommendation to the licensee to adopt good practice before the next reasonableness review</p> <p>(g) Determine the discount rates for payment history allowances, hDR_y, or an unambiguous basis for determining them, for each of the three years following the reasonableness review, giving reasons for any departure from those proposed in paragraph 3.41</p>
7	30 November 2017	30 November	The Authority will direct revised Pensions Allowance values and will publish a report on the reasonableness review.

* Or such later date that may be notified to the licensee by the Authority in writing.

Direction of revised Pensions Allowance values

3.59 The Authority will direct revised Pensions Allowance values by no later than 30 November in the year of a reasonableness review in accordance with the procedure set out in the licence condition specified in table 3.9.

Table 3.9 – Relevant licence conditions

<i>Price control</i>	<i>Relevant licence conditions</i>
RIIO-GT1	Special Condition 5C and Part D of Special Condition 6C
RIIO-GD1	Special Condition 3C
RIIO-ET1	Special Condition 6D and Part D of Special Condition 7C
RIIO-ED1	CRC 3C

3.60 Pensions Allowance values, as revised, are included in full in recalculated base revenue figures in the PCFM under the Annual Iteration Process.

4. Tax liability allowances - financial adjustment methodologies

Part 1 - Overview

4.1 The Opening Base Revenue Allowances ('PU' and 'SOPU' values) for the licensee set down in the tables in Special Conditions 2A and 3A include tax liability allowances which 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.

4.2 Part B of Special Condition 5C and 6C provides for adjustments to be made to the licensee's tax liability allowances¹³ during the Price Control Period commencing 1 April 2013 through the Annual Iteration Process for the GT1 Price Control Financial Model (PCFM). Changes to the factors referred to at sub-paragraphs 4.1(a) and (b) are referred to as 'tax trigger events' and the methodology for adjustments is set out in Part 2 of this chapter. Changes to the factors referred to at sub-paragraph 4.1(c) are referred to as 'tax clawbacks' and the methodology for adjustments is set out in Part 3 of this chapter.

Temporal conventions

4.3 For the purposes of Special Condition 5C and 6C and this chapter, "Formula Year t" means the Formula Year in which a value for the term MOD, calculated through a particular Annual Iteration Process, is used in the formula for the licensee's Base NTS Transportation Owner Revenue and Base NTS System Operation Revenue.

Annual Iteration process

4.4 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 both the TO and the SO) for the licensee contains rows for PCFM Variable Values for tax liability allowance adjustments driven by:

- tax trigger events ('TTE' and 'SOTTE' values); and

¹³ References in this chapter to tax liabilities are references to liabilities for corporation tax only and not to any other type of taxation.

- tax clawbacks ('TGIE and 'SOTGIE' values').

4.5 TTE, SOTTE, TGIE and SOTGIE values represent £m amounts. As at 1 April 2013, the TTE, SOTTE, TGIE and SOTGIE values for the licensee, for each Formula Year will be zero. Part B of Special Condition 5C and 6C provides for any revisions to TTE, SOTTE, TGIE and SOTGIE values to be directed after determination under the methodologies in this chapter.

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

4.7 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 and SOTTE values (determined using the tax trigger calculation tool referred to in the methodology in Part 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 and SOTGIE values (determined under the methodology in Part 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.

4.8 It should be noted that underlying tax liability allowances for the licensee within the PCFM might 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. Assumptions in respect of the allocation of component elements of allowed Totex expenditure to capital allowance pools and revenue expenditure in the PCFM as set out in the Final Proposals will not be updated in the Price Control Period.

Price bases for tax calculations

4.9 The PCFM works in constant 2009-10 prices, with all inputs and outputs in this price base. Where applicable, financial amounts which are expressed in later, nominal prices, will be deflated to 2009-10 prices in accordance with paragraph 1.7

(Formula Year average) before being used to determine revised TTE, SOTTE, TGIE and SOTGIE 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 and hard coded into the PCFM.

Regulatory tax losses

4.11 In some instances, the approach to calculating tax liability allowances could imply that the licensee should 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 which would otherwise be allocated to the year concerned or later years. The regulatory tax loss balance attributable to each Formula 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 Part 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); and
- interest payments (including any coupon on any debt instrument or preference share dividend) and receipts which 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 the July 2009 decision letter.¹⁴

4.13 For the purposes of the methodology set out in Part 3 of this chapter, levels of debt, interest and gearing are considered at licensee level, as opposed to any other level with respect to the corporate or ownership group of which the licensee is a member.

¹⁴ [Open letter: Clawback of tax benefit due to excess gearing.](#)

Part 2 - Adjustments driven by tax trigger events - methodology

4.14 The methodology set out in this Part 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 Formula Years; and
- changes to capital allowance rates applicable to one or more Formula Years.

Type B

Type B events consist of other factors (exogenous to the licensee, its owners or controllers) which cause a change to the licensee's notional tax liabilities for one or more Formula 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 changes the allocation of allowable expenditure into different capital allowance pools, or introduces new capital allowance pools, the model will only be adjusted for the scale of the change driven by the policy. The applicable allocation and allowance rates will be adjusted to take into account the new expected allocation basis from the introduction of a new capital allowance pool or pools. There is no adjustment of allocations to licensee's actual allocations for Formula Years up to the date of the change. We will work with licensees to quantify changes to allocations where these are not straightforward.

4.17 Type B events will only be taken into account where the licensee has demonstrably used 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 Formula Year is included amongst the fixed values on the Tax Trigger sheet for the licensee in the PCFM.

4.19 The materiality threshold for each Formula Year is fixed for the period of the price control as set out in the Final Proposals. The threshold was determined for each Formula Year as the greater of:

- 0.33 per cent of the Opening Base Revenue Allowance for the licensee; and
- the effect that a one per cent change in the rate of corporation tax would (all other things being equal) have had on the calculation of the Opening Base Revenue Allowance for the licensee.

4.20 A change to notional tax liability allowances for a particular Formula Year is only applied where one or more trigger events result in a change to the licensee's tax liability allowance 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 which is in excess of the threshold amount for the year concerned.

4.21 Where the change to the licensee's tax liability allowance for a particular Formula Year is below the threshold, subsequent tax trigger events, relating back to that Formula Year could cause the threshold amount to be exceeded. In that case, a change to the licensee's tax liability allowance for the Formula Year concerned (a revised TTE/SOTTE value) would be determined once the threshold has been exceeded. For the avoidance of doubt no previously directed value of MOD or SOMOD will be retrospectively affected. Adjustments become component parts of future MOD or SOMOD calculations only.

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

Accounting standards

4.23 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.

4.24 The accounting frameworks to be applied by the licensee for the purpose of computing tax liabilities are:

- UK GAAP in respect of Formula Years 2013-14 and 2014-15; and
- for each subsequent Formula Year 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

4.25 Ofgem will, by 30 September in each Formula Year t-1, notify the licensee of the Type A trigger events which it proposes to take into account in determining any revised TTE/SOTTE values for use in the Annual Iteration Process that is required to take place by 30 November in that same Formula Year t-1. It is, however, open to the licensee to contact Ofgem in advance of 30 September in each Formula Year to discuss the current view of Type A events. If Ofgem does not notify the licensee by 30 September in any year, the adjustments will be made in the subsequent year.

4.26 The notification from Ofgem will specify the corporation tax rate change(s) or changes to rates of capital allowances concerned and the Formula Years to which they relate.

4.27 If, after receiving the notification referred to in paragraph 4.25, the licensee considers that a Type A trigger event has occurred, which 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 Formula Year t-1.

4.28 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/SOTTE value (either because it was not included in a notice or otherwise) the position will be rectified in a subsequent revision of the TTE/SOTTE 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

4.29 The licensee must notify Ofgem by not later than 30 September in each Formula Year t-1 of all the Type B trigger events that it becomes aware of, except those which have been previously notified. This requirement applies equally to events which could be expected to increase or to reduce the licensee's tax liability allowances.

4.30 If the licensee fails to notify Ofgem of any events it becomes aware of, or should be aware of, then subject to the licensee demonstrating that it uses

reasonable endeavours to identify all Type B trigger events this may not be held a breach of the licence conditions. We will deal with each event on its merits on a case-by-case basis.

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

- (a) a description of the event;
- (b) the changes in tax liability allowances which the event is considered to cause and the Formula Years to which they relate;
- (c) the calculations (including all relevant parameters and values) which the licensee used to arrive at the amounts referred to in sub-paragraph b). In performing these calculations the licensee should include a 'tax allowance on tax allowance' factor as explained in paragraph 4.7 but should ignore the tax trigger deadband which is adjusted for in paragraph 4.40;
- (d) any relevant information provided by HMRC in relation to the event;
- (e) evidence of mitigating measures which the licensee has taken to minimise any additional liabilities arising from the event; and
- (f) whether licensee agrees or disagrees with HMRC, whether they may contest it; and how they intend to report it in the tax submissions and their statutory and regulatory accounts.

4.32 The licensee's notification should also state whether the licensee considers that the materiality threshold (see paragraph 4.18) has been exceeded for the Formula 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.

4.33 Ofgem will review any notifications given to it by the licensee under paragraph 4.29 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 auditors¹⁶, to assist in confirming the appropriateness and accuracy of the licensee's calculations.

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

- it has agreed the change in tax liabilities figure calculated by the licensee;
- it has determined a different change in tax liabilities figure from that calculated by the licensee; or

¹⁶ As defined in Standard Special Condition A3 of the Gas Transporter Licence.

- it has decided that consideration of any change in tax liabilities should be deferred until further/better information is available.

4.35 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.

4.36 Ofgem will also notify the licensee by 31 October in each Formula Year t-1, of any Type B trigger events that it proposes to take into account but which 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.

4.37 The final quantification and adjustment for any type B trigger event will be deemed to have occurred when the licensee and HMRC conclude the agreement of the licensee's tax liabilities for the relevant Formula Year. This means that the final quantification will typically either confirm a prior value of TTE/SOTTE or revise a value of TTE/SOTTE for a Formula Year t-2 or earlier. The adjustment to TTE/SOTTE values will be directed in accordance with paragraphs 4.43 to 4.45.

Logging of trigger events

4.38 Ofgem will keep a log of tax trigger events which have been subject to notifications by it or by licensees 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 which 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 and SOTTE values

Determination of revised TTE and SOTTE values using the tax trigger calculation tool

4.39 The design of the PCFM includes additional functionality meaning that a copy of the PCFM (held on Ofgem's website) can be used as a tax trigger calculation tool, as an adjunct to the Annual Iteration Process.

4.40 Once a tax trigger event has taken place at any point in the RIIO-T1 price control period, then after 31 October in each Formula 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 under Special Condition 4A) for use as the tax trigger calculation tool. It will then take the following

steps to determine TTE/SOTTE values for each licensee where a tax trigger event has occurred:

- (i) All of the other PCFM Variable Value revisions which 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 applied to the Variable Values Table. The correct Formula Year will be selected using the PCFM year t selector on the User interface worksheet of the PCFM.
- (ii) All of the existing TTE/SOTTE values will be re-set to zero.
- (iii) Any existing values in the yellow input cells on the tax trigger worksheet will be cleared.
- (iv) The 'Tax allowance (pre-losses) before tax trigger' amount for the licensee for each Formula 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 User Interface worksheet of the PCFM.
- (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 Formula 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 Formula Year t-1 or on an earlier occasion) will be input into the yellow input cells on the 'Tax Trigger' row of the 'B event value' section in the appropriate Formula Year columns on the tax trigger worksheet. This value should include the iterative tax allowance on tax allowance factor referred to in paragraph 4.7.
- (ix) The tax trigger macro calculation will be re-run.
- (x) The 'tax allowance (pre-losses) 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 Formula 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.

4.41 Subject to paragraph 4.42, the relevant amounts obtained under step (xii) or (xiii) will then be determined to be the TTE/SOTTE values for the licensee for each Formula Year where the deadband has been exceeded. Where these values differ from the TTE/SOTTE values shown on the Variable Values Table for the licensee in the PCFM (following the last completed Annual Iteration Process), Ofgem will direct that the TTE/SOTTE values concerned are to be changed in accordance with the process set out in Part B of Special Condition 5C and 6C, and referred to below.

4.42 The process set out in paragraph 4.40 will be re-performed, if any of the PCFM Variable Values, referred to at step (i) are changed, to ensure that accurate TTE or SOTTE values are available for the Annual Iteration Process.

Notes on the tax trigger calculation – set out in 4.40

- 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 or SOTTE 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 and SOTTE values under step (xiii) is on a consistent basis and accurately applies the materiality threshold/deadband applicable to each Formula 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 Formula Year.
- Once a tax trigger event has occurred in any prior year, the tax trigger calculation will need to be run in all subsequent years, even if no tax trigger event occurs in the year of running the calculation.

Direction of revised TTE and SOTTE values

4.43 The Authority will direct any revisions to TTE and SOTTE values for the licensee by 30 November in each Formula Year t-1, having given the licensee at least 14 days notice of the values which it proposes to direct.

4.44 Revised TTE and SOTTE values can be directed in respect of a particular Annual Iteration Process for any Formula Year during the price control period, including for years later than year t.

4.45 The procedure for the Authority's direction of revised TTE and SOTTE values is set out in Part D of Special Condition 5C and 6C.

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

4.46 At the outset of the Price Control Period, modelling assumptions are made about financing requirements, gearing levels and corporate debt costs for each of the licensee's transportation owner (TO) and system operator (SO) parts of the business. These result in modelled levels of tax deductible interest costs and tax relief for each of the TO and SO. The TGIE and SOTGIE adjustments are to be calculated separately for each of the TO and the SO, where applicable, both are referred to as the licensee below (and references to TGIE should be taken to include SOTGIE).

4.47 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. We apply a mechanism which 'claws back' this benefit for consumers by updating the licensee's tax liability allowances using the methodology set out in this Part. 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 and SOTGIE values

4.48 As a function of each Annual Iteration Process of the PCFM, for each year in the period 2013-14 to 2020-21 inclusive, an updated figure for the expected amount of tax deductible interest payable by the licensee is calculated. These are shown as core and non-core elements in the Finance and Tax worksheet.

4.49 After 30 September in each Formula Year, Ofgem will obtain the most recently modelled figure for tax deductible interest payable by the licensee in Formula Year t-2, and all prior years, from a copy of the PCFM, in its state following the last completed Annual Iteration Process (but including any functional modifications under Special Condition 5C)¹⁷.

4.50 The licensee is required to submit its price control cost reporting pack by 31 July in each Formula Year t-1¹⁸, in accordance with Standard Special Condition A40 (Regulatory Instructions and Guidance) of its gas transporter licence and the Price Control Cost Reporting Rules: Instructions & Guidance ('RIGs') issued under that condition.

4.51 Ofgem will obtain from the "tax clawback data table" in that submission:

¹⁷ The determination in respect of Formula Year t-2 will use the data subsisting immediately after the preceding Annual Iteration Process, which will have taken place by 30 November in Formula Year t-2. It will not therefore have been updated in respect of information reported by the licensee during Formula Year t-1. However, the annual reperformance of the determination for preceding years will ensure that finalised figures are subsequently taken into account.

¹⁸ Subject to any changes to Standard Special Condition A40 (Price Control Review Information).

- (i). the licensee's view of its adjusted net debt figure as at 31 March in Formula Year t-2 for the purposes of this calculation; and
- (ii). the adjusted amount of tax deductible net interest payable by the licensee during Formula Year t-2, measured on an accruals basis.

4.52 The criteria, which the licensee must observe in reporting each of these items, are set out in the Cost and Revenue Reporting RIGs and Ofgem reviews the licensee's reporting in this regard.

4.53 Ofgem will obtain from the PCFM:

- The licensee's indicative RAV (including any Shadow RAV) balance in 2009-10 prices as at 31 March in Formula Year t-2 and inflate to year-end prices for Formula Year t-2, using the arithmetic average of the RPI data for March of Formula Year t-2 and April of Formula Year t-1; and
- The modelled figure for tax deductible interest payable by the licensee in Formula Year t-2.

Applicability tests

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

Gearing level test

4.55 Ofgem will divide the licensee's net debt figure as at 31 March in Formula Year t-2 (see paragraph 4.51(i)) by the licensee's indicative PCFM RAV (including any Shadow RAV) balance as at 31 March in Formula Year t-2 (see paragraph 4.53) to obtain an actual calculated gearing ratio.

4.56 If the actual calculated gearing ratio established under paragraph 4.55, expressed as a percentage, is greater than the notional level of gearing as set out in the Final Proposals, ie 62.5 per cent, then the positive tax benefit test will be performed. If the positive tax benefit test is not performed then TGIE is zero.

Positive tax benefit test

4.57 Ofgem will subtract the "interest" as set out in the PCFM in the Finance and Tax worksheet in Formula Year t-2 (see paragraph 4.49) from the adjusted tax deductible interest payable reported by the licensee and treated as a positive value (see paragraph 4.51(ii)) for Formula Year t-2. If the resultant amount is positive then the clawback has been triggered.

4.58 If the amount is zero or negative meaning there is no positive tax benefit the clawback is not triggered and the value of TGIE is zero. If the clawback has been triggered, Ofgem will multiply the result in 4.57 by the corporation tax rate for the

licensee (as hard-coded into the PCFM) to derive the licensee's benefit figure which becomes TGIE.

4.59 TGIE can only be zero or positive. The mechanics of the model will produce a negative adjustment to tax allowances as intended by the positive tax benefit test.

Interaction with unutilised regulatory tax losses

4.60 If for any Formula Year the licensee has a clawback but no modelled profits subject to tax then the net positive tax benefit amount calculated in 4.57 is added to the regulatory tax losses balance for the licensee. This will be utilised against future core taxable profits as set out in Part 4 below.

Direction of TGIE and SOTGIE values

4.61 TGIE and SOTGIE values will usually be directed in respect of Formula year t-2 because the figures used in determining them are obtained from the licensee's annual cost reporting return which, at the time of first submission, contains data relating to Formula Year t-2 and prior years²¹.

4.62 If, for any reason, the net debt or tax deductible interest figures submitted by the licensee or the RAV used in the model or the modelled interest costs that have been used in determining TGIE and SOTGIE values are subject to amendment, the following procedure will be followed for the next Annual Iteration Process:

- Ofgem will re-perform the gearing level test and, if applicable, the positive tax benefit test to determine whether any revised TGIE and SOTGIE values should be determined and directed in respect of the Formula Year 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.
- If a revised TGIE or SOTGIE value is directed for a year earlier than Formula Year t-2, any resultant changes to recalculated base revenue figures for years earlier than Formula Year t-2 calculated under an Annual Iteration Process will, subject to a Time Value of Money Adjustment, be brought forward and reflected in the calculation of the term MOD and SOMOD to be directed for Formula 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 or SOMOD.

4.63 The Authority will direct TGIE and SOTGIE values for the licensee by 30 November in each Formula Year t-1, having given the licensee at least 14 days notice of the values which it proposes to direct.

4.64 The procedure for the Authority's direction of revised TGIE and SOTGIE values is set out in Part D of Special Conditions 5C and 6C.

Part 4 - Processing of revised TTE, SOTTE, TGIE and SOTGIE values under the Annual Iteration Process

4.65 Subject to paragraph 4.69, a positive TTE/SOTTE value will increase the recalculated base revenue figure for the Formula Year concerned by the same amount.

4.66 Subject to paragraph 4.69, a negative TTE/SOTTE value will decrease the recalculated base revenue figure for the Formula Year concerned by the equivalent amount.

4.67 Subject to paragraph 4.69, a positive TGIE/SOTGIE value will decrease the recalculated base revenue figure for the Formula Year concerned by:

- the amount of the value¹⁹; and
- a 'tax allowance on tax allowance' factor calculated by functionality within the PCFM (see paragraph 4.7).

4.68 As noted at paragraph 4.59, TGIE/SOTGIE values can only be zero or positive.

4.69 If there is any unutilised regulatory tax losses balance for the licensee, any change to recalculated base revenue under paragraph 4.65, 4.66 or 4.67 will be partially or fully abated to take account of that balance, and the regulatory tax losses balance held within the GT1 PCFM will be updated accordingly.

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

¹⁹ Subject to a price base adjustment factor applied under the PCFM functionality (see paragraph 1.6 in chapter 1).

5. Corporate debt - allowed percentage cost financial adjustment methodology

Overview

5.1 The allowed revenue totals for the licensee include amounts to cover the efficient cost of raising finance for the transportation 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)²⁰ for the transportation business. The Vanilla WACC is determined using a pre-tax cost of corporate debt percentage, a post-tax real cost of equity percentage and a weighting (notional gearing) percentage.

5.2 Under the RIIO-T1 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 of the GT1 Price Control Financial Model (PCFM).

5.3 The use of an indexed corporate debt percentage means that allowed revenues are appropriately updated to reflect debt market conditions. As a result, consumers will derive a benefit when debt costs fall whilst the licensee and its investors are provided with assurance that higher, efficiently incurred debt costs will be funded.

5.4 The basis for updating the cost of debt index percentage value by revising PCFM Variable Values for the licensee's allowed TO percentage cost of corporate debt ('CDE' values) is established in Special Condition 5C (Specified financial adjustments – NTS Transportation Owner). Special Condition 5C requires revised CDE values to be determined in accordance with the methodology in this chapter.

System Operator price control

5.5 Part C of Special Condition 6C (Specified financial adjustments – NTS System Operator) of the licence provides for PCFM Variable Values for the licensee's allowed SO percentage cost of corporate debt ('SO CDE' values) to be determined in accordance with the methodology in this chapter. The SO CDE value for any Formula Year is the same as the CDE Value for the same year, so references hereafter to CDE include SOCDE.

²⁰ see Glossary

Temporal conventions

5.6 For the purposes of Special Condition 5C, 6C and this chapter, "Formula Year t" means the Formula Year in which a value for the term MOD, or as applicable SOMOD, calculated through a particular Annual Iteration Process, is used in the formula for the licensee's Base NTS Transportation Owner Revenue / internal operating cost revenue²¹.

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

5.7 At the outset of the Price Control Period (1 April 2013), the CDE value for every Formula Year will be the pre-tax cost of debt percentage for the licensee set down in RIIO-T1 Final Proposals.

5.8 Revised CDE values are to be derived using the pounds sterling indices of bonds issued by non-financial institutions which have a remaining maturity of 10 or more years contained in the Markit iBoxx® database of bond market data.

5.9 A revised CDE value will be determined in accordance with the methodology set out below and directed in respect of each Annual Iteration Process for Formula Year t and subsequent Formula Years. The following steps are to be followed to determine the revised CDE value:

Step 1

Establish the 'trading days period'²² to be used in relation to the particular Annual Iteration Process:

Annual Iteration Process taking place not later than:	Trading days period
30 November 2013	1 November 2003 to 31 October 2013
30 November 2014	1 November 2004 to 31 October 2014

²¹ See Special Condition 2A (Restriction on NTS Transportation Owner Revenue).

²² Trading days as published in the Markit iBoxx® database.

30 November 2015	1 November 2005 to 31 October 2015
Et seq.....	Et seq.....

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

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 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; and
- r is the Yield from British Government Securities, 10 Year Real Zero Coupon – series reference IUDMRZC.

The above series will be sourced from the statistics page on the Bank of England's website²³. 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:

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

where:

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

iBoxx is the average of the annual yield figures obtained under Step 2; 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 mean value of *CoD* across the trading days period ascertained under Step 1.

This arithmetic mean, expressed as a percentage, constitutes the revised PCFM Variable Value for the cost of corporate debt which will be directed and entered into the PCFM to two decimal places.

Non-availability of iBoxx or Bank of England data

5.10 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

²³ <http://www.bankofengland.co.uk>

concerned is subsequently published, revised PCFM Variable Values for the affected Formula Years will be directed.

5.11 If, for any reason, the iBoxx or Bank of England series identified above cease 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.

Use of revised PCFM Variable Values in the Annual Iteration Process

5.12 The Authority will direct revised CDE²⁴ values by no later than 30 November in each Formula Year t-1 in accordance with Part D of Special Condition 5C and Special Condition 6D. Notice of proposed revised values will be given to licensees at least 14 days before the date of the direction.

5.13 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.

5.14 The data and spreadsheet used to calculate revised CDE values will be published on the Ofgem website, and will be provided to the licensee with the notification of proposed values.

²⁴ and SOCDE values for NGGT.

6. Totex Incentive Mechanism – financial adjustment methodology

6.1 For RIIO-T1 Final Proposals Opening Base Revenues Allowances will have been modelled on the basis that actual Totex²⁵ expenditure levels are expected to equal allowed Totex expenditure levels (allowances). If actual (outturn) expenditure differs from allowances, for any Formula Year during the Price Control Period, the Totex Incentive Mechanism (TIM) provides for an appropriate sharing of the incremental amount (whether an overspend or underspend) between consumers and the licensee.

6.2 The GT1 Price Control Financial Model (PCFM) contains values for both actual expenditure and allowed Totex expenditure levels which, 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

6.3 Actual Totex expenditure is divided into several sub-divisions to facilitate varying tax pool treatments under the Annual Iteration Process calculations. 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 terms MOD_t and $SOMOD_t$.

6.4 Special Conditions 5B (Determination of PCFM Variable Values for Totex Incentive Mechanism Adjustments – NTS Transportation Owner) and 6B (Determination of PCFM Variable Values for Totex Incentive Mechanism Adjustments – NTS System Operator) provide for the Authority to determine revised PCFM Variable Values for the licensee relating to actual Totex expenditure levels. They also set out the procedures for the direction of those values so that they can be used for the Annual Iteration Process.

Allowed Totex expenditure

6.5 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:

²⁵ See Glossary

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

Special Condition	PCFM Variable Value	Relating to	Handbook chapter
5D	IRM	Innovation roll-out allowed expenditure	10
5F	EnCI	Incremental obligated entry capacity	8
5G	ExCI	Incremental obligated exit capacity	9
5E	IAEEPS IAEIE IAEPD IAEQL IAEAH IAENF PTV	Enhanced physical site security costs Industrial emissions costs Pipeline diversion costs Quarry and loss development claim costs One-off asset health costs Network flexibility costs PARCA Termination Value	7
6D	SOIAEEPS SOIAECA	Enhanced security costs Agency costs	7

Description of the Totex Incentive Mechanism

6.6 In the remainder of this chapter, references to the term MOD should be taken to include SOMOD and references to Special Condition 5B should be taken to include Special Condition 6B.

6.7 The Totex Incentive Mechanism (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 Totex Incentive Strength Rate (incentive strength) for the licensee. The incentive strength is a percentage figure specified in special condition 5B for the licensee. It represents the percentage that a licensee bears in respect of an overspend against allowances or retains in respect of an underspend 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 $(1 - \text{incentive strength})$. Applying the Funding Adjustment Rate to the over (or under spend) gives the amount that is added to (or subtracted from) the totex allowances included in recalculated base revenues. Wherever the term "Totex Incentive Mechanism Adjustment" is used in the Special Conditions, it means an adjustment under the mechanism described in this paragraph.

6.8 The TIM uses the actual Totex expenditure values reported to Ofgem by 31 July each year (subject to any revisions that may be required for corrections to data or for expenditure that is not regarded as efficient) and adjusts revenues in the following Formula Year via the MOD term. The incentive mechanism therefore operates with a two year lag.

6.9 Totex, once ascertained under the TIM, is apportioned using the Totex Capitalisation rate(s), as:

- fast money - flowing directly to the recalculated base revenue figure for the Formula Year to which the allowed expenditure relates; and
- slow money - additions to the licensee’s RAV in the Formula Year to which the allowed expenditure relates; the return on RAV and depreciation flowing to the recalculated base revenue figure for the Formula year.

6.10 Totex Capitalisation Rates are specified at Appendix 1 to Special Conditions 5B and 6B and are hard coded into the PCFM as fixed input values for the licensee. NGGT TO has two rates of capitalisation, one for baseline expenditure and an “uncertainty rate”. The NGGT expenditure to which the “uncertainty” capitalisation rate is applied is that expenditure which is included in the uncertainty mechanisms detailed in the Final Proposals Cost assessment and uncertainty Supporting Document²⁶ (broadly relating to Entry and Exit Revenue Drivers, Network Flexibility, Enhanced Physical Site security and Industrial Emissions). Full details will be included in the RIIO-T1 Gas Transmission Cost and Revenue Reporting Regulatory Instructions and Guidance (RIGs) document. The SO has its own Totex Capitalisation Rate.

6.11 Under the Annual Iteration Process, the effects of this modelling treatment, (including any ancillary effects in respect of eg tax allowances) are reflected in the value of the term MOD_t.

Totex Incentive Mechanism - illustrative examples

6.11 Basic, illustrative examples of the calculation approach are set out below:

Opening position:

allowed Totex expenditure:	100
assumed actual Totex expenditure:	100
over/underspend	nil
Totex amount for fast/slow money treatment	100

- ²⁶ Cost assessment and uncertainty Supporting Document
- [RIIO-T1: Initial Proposals for NGET and NGGT – Cost assessment and uncertainty](#)

Revised position – scenario 1:

allowed Totex expenditure	110
actual Totex expenditure	90
underspend	(20)
incentive strength say 40% (or 0.4)	
Totex adjustment $(1 - 0.4) \times (20)$	(12)
Totex amount for fast/slow money treatment $110 - 12$	98

Revised position – scenario 2:

allowed Totex expenditure	110
actual Totex expenditure	120
overspend	10
incentive strength say 40% (or 0.4)	
Totex adjustment $(1 - 0.4) \times 10$	6
Totex amount for fast/slow money treatment $110 + 6$	116

6.12 The reduced Totex amount for fast/slow money treatment in scenario 1 represents a clawback of part of the underspend 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.

6.13 For NGGT TO the totex relating to allowances associated with uncertainty mechanisms set during the period are subject to a different capitalisation rate than the totex allowances used to derive Opening Base Revenue Allowances. The categories (see paragraph 6.10) are identified as the ALU, ARU, ACU and AOU terms. They are subject to TIM in the same way as base allowances and the resultant fast/slow money split is added to that calculated for base totex to give total fast and slow money.

Application of the TIM under the Annual Iteration Process

6.14 For the purposes of Special Conditions 5B and 6B and this chapter, "Formula Year t" means the Formula Year in which a value for the term MOD calculated through a particular Annual Iteration Process, is used in the formula for the licensee's Base NTS Transportation Owner Revenue²⁷.

6.15 The opening values for actual Totex expenditure contained in the PCFM will be revised to reflect outturn values (in 2009-10 prices) reported by the licensee in its

²⁷ See Special Conditions 2A (Restriction of NTS Transportation Owner Revenue)

annual cost reporting submission, subject to review by Ofgem. The normal revision cycle will be:

Formula Year t-2:	Totex expenditure incurred;
Formula Year t-1:	Outturn expenditure levels reported to Ofgem by 31 July;
Formula Year t-1:	31 October – cut off date for making revisions (that may be required for corrections to data or for expenditure that is not regarded as efficient) to outturn expenditure levels to be taken account of in that years' Annual Iteration Process
Formula Year t-1:	Revised PCFM Variable Values for actual Totex expenditure determined and directed by the Authority by 30 November; [and, as applicable, revised PCFM Variable Values for categories of allowed Totex expenditure determined/directed – see relevant Handbook chapters]
Formula Year t-1:	Value for MOD_t directed by the Authority by 30 November;
Formula Year t:	Value for MOD_t effective in formula for licensee's Base NTS Transportation Owner Revenue.

6.16 The Authority can determine and direct revised PCFM Variable Values for actual Totex expenditure for years earlier than Formula 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.

6.17 Allowed Totex expenditure levels will be revised in accordance with the provisions of applicable scheme licence conditions and the associated methodologies in this Handbook. In instances where allowed Totex expenditure levels are revised for Formula Year t-1 or later (in relation to the timeline set out in paragraph 6.16), 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 the opening paragraph of this chapter.

6.18 It should be noted that:

- each Annual Iteration Process re-runs the TIM calculations for each Formula Year up to Formula Year t-2 (for later years the TIM is neutral – see paragraph 6.18);
- the outstanding effect of those calculations is reflected in the value of MOD_t ; and
- the PCFM works in constant 2009-10 prices, but applies adjustments to ensure that the effect of PCFM Variable Value revisions are NPV neutral with respect to Formula Year t.

Total expenditure (“Totex”)

6.19 In the following section the term ‘Totex’ refers to both TO Totex and SO Totex.

6.20 In summary Totex consists of all the items of expenditure required for the licensee to carry on the transportation business with the exception of:

- costs relating to excluded services activities;
- pension deficit repair payments relating to the Established Deficit and for the avoidance of doubt, all unfunded early retirement deficiency costs (ERDC) post 1 April 2004;
- Pension Scheme Administration and PPF levy costs;
- The non cash element of current service pension costs charged to the income statement in accordance with accounting standards;
- costs associated with specific incentive schemes as detailed in the RIGs (eg TPCR4 revenue driver schemes);
- statutory or regulatory depreciation and amortisation;
- profit margins in payments to 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, exceptionally, 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
- costs reported other than on a normal accruals basis;
- costs in relation to pass-through items including:
 - business rates (except for business rates on non-operational buildings), and
 - Ofgem licence fees;
- interest, other financing and corporation tax costs;
- other items of expenditure as detailed in the RIGs.

6.21 Further details on the reporting of the expenditure items which are eligible for Totex treatment is given in the Cost and Revenue Reporting Regulatory Instructions and Guidance (RIGs) document referred to in Standard Special Condition A40

(Regulatory Instructions and Guidance) of the licence. The RIGs also detail other requirements for expenditure to be able to qualify as Totex .

6.22 It should also be noted that:

- any change in the Totex amount for the licensee under the TIM is included as an adjustment to fast / slow money;
- pension deficit repair payments relating to any incremental deficit (ie not part of the Established Deficit) are considered to be part of the licensee’s labour costs and as such are part of Totex; and
- customer contributions (which mainly relate to connection works) and other proceeds received (including from legal and insurance claims) that relate to the transportation business are treated as an offset to Totex expenditure, unless specifically subject to different treatment under the Cost and Revenue Reporting RIGs.

Determination of PCFM Variable Value revisions for actual Totex expenditure

6.23 Following a review by Ofgem, the Authority will, by 30 November in each Formula Year t-1, determine that the PCFM Variable Values for Formula Year t-2 (and prior RIIO-T1 years if required), shown in the first column of Table 6.2 below, should be revised to match the equivalent actual expenditure values in the licensee’s annual cost reporting submission after any necessary adjustments (including costs amended following any efficiency review by Ofgem).

6.24 As noted in paragraph 6.17, the Authority can also determine and direct revised PCFM Variable Values for actual Totex expenditure for years earlier than Formula Year t-2 where that is 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 sub-division
ALC	Actual load related capex expenditure
ARC	Actual asset replacement capex expenditure
AOC	Actual other capex expenditure
ACO	Actual controllable opex expenditure
ANC	Actual non-operational capex expenditure
ALU	Actual load related capex expenditure (uncertain)

ARU	Actual asset replacement capex expenditure (uncertain)
AOU	Actual other capex expenditure (uncertain)
ACU	Actual controllable opex (uncertain)
SOACO	Actual controllable opex expenditure (system operator)
SOANC	Actual non-operational capex expenditure (system operator)

6.25 The expenditure totals for each of the Totex sub-divisions set out in Table 6.2 will be ascertained from the cost and outputs reporting templates submitted by the licensee.

Notification and direction of revised PCFM Variable Values

6.26 The PCFM exists as a constituent part of Special Condition 4A (Governance of GT1 Price Control Financial Instruments). It has an input area for each licensee containing both fixed values and variable values. The variable values are shown in the PCFM Variable Values Table 6.1 for allowances and Table 6.2 for actual costs.

6.27 During each Formula Year t-1, the Authority will determine whether any PCFM Variable Values for the licensee relating to actual Totex expenditure should be revised. Part C of Special Condition 5B (and 6B), requires the Authority to give the licensee at least 14 days notice of any such proposed revisions, to allow for any 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.

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

6.29 The Authority will carry out the Annual Iteration Process in accordance with Special Condition 4B (see Chapter 1).

7. Uncertain costs allowed expenditure - financial adjustment methodology

Part 1 - Overview

7.1 Appropriate levels of allowed Totex²⁸ expenditure for some transmission business activities/requirements, were uncertain at the time of the RIIO-T1 Final Proposals. For RIIO-T1 Final Proposals, Opening Base Revenue Allowances have been modelled using forecast values relating to these uncertain cost categories.

7.2 The GT1 Price Control Financial Model (PCFM) contains values relating to allowed Totex expenditure on uncertain cost categories that can be varied for the purposes of the Annual Iteration Process. This means that the term MOD_t included in the formula for the licensee's Base NTS Transportation Owner Revenue (and the term $SOMOD_t$ included in the formula for Base NTS System Operation Revenue) can take account of up to date allowed expenditure levels for uncertain cost categories for the purposes of the Totex Incentive Mechanism described in chapter 6 of this Handbook.

7.3 PCFM Variable Values relating to uncertain cost categories are stated in constant 2009-10 prices, consistent with the price base used in the PCFM and the values for the terms MOD and SOMOD. The allocation of allowed expenditure for uncertain cost categories into the Totex sub-divisions referred to in table 6.2 of chapter 6 is handled automatically under the Annual Iteration Process using fixed attribution rates contained in the PCFM.

7.4 Special Conditions 5E (Arrangements for the recovery of uncertain costs) and 6D (Arrangements for the recovery of SO uncertain costs) provide for the Authority to determine relevant adjustments to allowed Totex expenditure on uncertain cost categories following a proposal made either by the licensee or the Authority.

7.5 Special Conditions 5E and 6D also provide for the Authority to determine revised PCFM Variable Values for uncertain costs categories in accordance with the methodology set out in this chapter to give effect to adjustments which have been determined. They also set out the procedures for the direction of revised PCFM Variable Values so that they can be used for the Annual Iteration Process.

7.6 The uncertain cost categories are set out in Table 7.1 below, alongside the applicable licence condition. Table 7.1 also shows whether each uncertain cost category applies to the TO or SO and the name of the associated PCFM Variable Value.

²⁸ See Glossary

Table 7.1 – Uncertain cost categories

Uncertain cost	Special Condition	TO or SO affected	PCFM Variable Value name
Enhanced physical site security	5E	TO	IAEEPS
Enhanced security	6D	SO	SOIAEEPS
Quarry and lost development claims	5E	TO	IAEQL
Industrial emissions	5E	TO	IAEIE
Pipeline diversions	5E	TO	IAEPD
One-off asset health costs	5E	TO	IAEAH
Network Flexibility	5E	TO	IAENF
PARCA Termination Value	5E	TO	PTV
Agency costs	6D	SO	SOIAECA

Overview of uncertain cost categories

7.7 Special Conditions 5E and 6D specify that any proposal for a relevant adjustment to an uncertain cost category must:

- be based on information about actual or expected costs that was not available when the licensee's Opening Base Revenue Allowances were calculated;
- take account of any prior relevant adjustments;
- relate to a material amount;
- relate to costs incurred or expected to be incurred after 1 April 2013; and
- constitute an adjustment that cannot be made under the provisions of any other Special Condition of the licence.

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

Enhanced physical site security – Transportation Owner

7.9 This category 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 used in connection with the pipeline system to which the licence relates.

Enhanced security - System Operator

7.10 This category 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 security of any of the IT systems required to operate the pipeline system to which the licence relates.

Quarry and lost development claims

7.11 This category means costs incurred, or expected to be incurred, by the Licensee in relation to settling any claims which have been demonstrably challenged by the Licensee as far as is reasonable regarding both the basis of the claim and the quantum of the compensation sought. For avoidance of doubt the following claims under the terms of the Deed of Easement or Deed of Servitude are included:

- (a) loss of crop and drainage;
- (b) loss of land development (including in relation to housing and quarrying);
- (c) sterilised minerals;
- (d) landfill and tipping; and
- (e) power generation.

Industrial emissions

7.12 This category means costs incurred, or expected to be incurred, by the Licensee in relation to works triggered as a result of emissions related legislation,

such as Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control, and the Industrial Emissions Directive.²⁹

Pipeline diversions

7.13 This category means costs incurred, or expected to be incurred, by the Licensee in relation to sleeping extant liabilities or other obligations to divert existing pipelines. Costs recoverable through this mechanism will be:

- (a) those arising as a result of existing obligations/liabilities taken on by the Gas Council/ British Gas for which the Licensee is now responsible; and
- (b) where the Licensee can demonstrate it has done everything in its powers to recover costs from the relevant party requesting the pipeline diversion.

One-off asset health costs

7.14 This category means costs incurred, or expected to be incurred, by the Licensee in relation to any single low probability high impact event (or series of low probability high impact events with a common trigger) not explicitly included within the allowances provided for under the Special Conditions.

Agency costs

7.15 This category means costs incurred, or expected to be incurred by the Licensee for the purposes of meeting its obligations under Standard Special Condition A15 (Agency).

Network flexibility

7.16 This category means costs incurred, or expected to be incurred, by the Licensee in relation to additional network investment required to continue to meet its 1 in 20 peak Day obligation in the safety case it has in place from time to time pursuant to the Gas Safety (Management) Regulations 1996.

PARCA Termination Value (PTV)

7.17 This category means an amount equal to the costs incurred by the Licensee in respect of a Planning and Advanced Reservation of Capacity Agreement (PARCA) that has been terminated prior to the allocation of Funded Incremental Obligated Entry Capacity or Funded Incremental Obligated Exit Capacity, less money recovered from

²⁹ See full definition in Cost and Reporting RIGs.

a PARCA Applicant under the PARCA in the event a PARCA is terminated³⁰. If the Licensee is not entitled to recover any money from the PARCA Applicant(s) then PTV will have the value zero. For the purposes of determining PTV, the costs incurred by the Licensee in respect of a terminated PARCA will be allocated to the year(s) in which they are incurred and the monies recovered from a PARCA Applicant will be allocated to the year(s) in which they are recovered. In the Formula Years 2014-15 and 2015-16 PTV_t will have the value zero.

Temporal conventions

7.18 For the purposes of Special Conditions 5E, 6D and this chapter, "Formula Year t" means the Formula Year in which a value for the term MOD, calculated through a particular Annual Iteration Process³¹, is used in the formula for the licensee's Base NTS Transportation Owner Revenue³². References to Formula Year t-1 etc should be construed accordingly.

7.19 A reference to, for example, *the IAEEPS value for 2015-16* means the IAEEPS value in the 2015-16 column of the PCFM Variable Values Table for the licensee contained in the GT1 Price Control Financial Model.

7.20 Where revisions to PCFM Variable Values are directed for Formula Years earlier than Formula Year t, the effect of using those revised values in the Annual Iteration Process for the GT1 Price Control Financial Model will, subject to a Time Value of Money Adjustment, be reflected in the calculation of the term MOD, or as applicable, SOMOD for Formula Year t and, for the avoidance of doubt shall not have any retrospective effect on a previously directed value of the term MOD or SOMOD.

7.21 Revisions to PCFM Variable Values directed for Formula Years later than Formula Year t do not feed into the calculation of the term MOD_t and $SOMOD_t$ but (subject to further determinations) have status as values determined under the provisions of Special Condition 5E or, as applicable, 6D.

Part 2 - Determination of PCFM Variable Value revisions for uncertain cost categories

7.22 In the remainder of this chapter, references to the term MOD should be taken to include the term SOMOD and references to Special Condition 5E should be taken to include Special Condition 6D.

Determinations in relation to proposed adjustments

7.23 Proposals for relevant adjustments in respect of the majority of uncertain cost categories, with the exception of Network Flexibility, PARCA Termination Value and Agency costs, can only be made by the licensee or the Authority during

³⁰ See full definition in Special Condition 1A (Definitions).

³¹ and/or SOMOD.

³² See Special Condition 2A (Restriction of NTS Transportation Owner Revenue).

application windows specified in Special Condition 5E. Proposals, in relation to all uncertain cost categories, must be made in the form of notices given by the licensee to the Authority or vice versa.

7.24 There are no application windows for proposals for relevant adjustments in respect of Network Flexibility, PARCA Termination Value and Agency costs. These adjustments can be made at any time. Where reference is made to application windows in the remainder of this chapter these should be ignored in respect of Network Flexibility, PARCA Termination Value and Agency costs.

7.25 Following the end of each application window (or in relation to Network Flexibility and PARCA Termination Value after the receipt of a proposal for an adjustment) the Authority has four months to confirm, reject or vary the proposed adjustment in a determination decision. In reaching that decision the Authority must:

- consult with the licensee concerned and other interested parties;
- have particular regard to the purposes of the licence condition; and
- take no account of the general financial performance of the licensee under the price control arrangements.

7.26 If the Authority does not make a determination decision in relation to a duly submitted adjustment proposal within the four month period referred to in paragraph 7.24, then the adjustment is deemed to have been made.

7.27 In relation to Agency costs, the Authority can commence a review at any time.

Determination of PCFM Variable Values

7.28 It follows from the timetable outlined in paragraphs 7.23 to 7.27 above that the Authority will only determine revised PCFM Variable Values relating to uncertain cost categories (as set out in Table 7.1) for use in the Annual Iteration Process in the year in which an application window arises or in relation to Network Flexibility or PARCA Termination Value within four months following the receipt of a proposed adjustment and the conclusion of the assessment process. In relation to Agency costs the Authority will determine a revised PCFM Variable Value after the conclusion of the review.

7.29 It should be noted that the determination can amend PCFM Variable Values for any years in the RIIO-T1 period.

7.30 The following procedures will be carried out by the responsible Ofgem team to facilitate the determination of any revised PCFM Variable Values relating to uncertain cost categories for the Annual Iteration Processes:

- on or shortly after 1 June, a check will be made on whether any relevant adjustments were proposed during the application window which has just closed and the position noted;
- liaison will be maintained with the Ofgem team responsible for the review of proposed adjustments and any determination made by the Authority will be noted;
- prior to the start of the Annual Iteration Process, the aggregate net adjustment (whether upward or downward) for the licensee in respect of each uncertain costs category will be ascertained by totalling the amounts of:
 - any determinations of relevant adjustments made by the Authority;
 - any adjustments duly proposed by the licensee, and not withdrawn, which have not been determined by the Authority; and
 - each aggregate net adjustment will be rebased to the 2009-10 price base used in the PCFM in accordance with paragraph 1.7 of chapter 1 of this Handbook.

7.31 Each aggregate net adjustment ascertained under paragraph 7.30 will be added to the equivalent pre-existing PCFM Variable Value contained in the PCFM for the licensee and the resulting figure will be determined by the Authority to be the revised PCFM Variable Value for that uncertain costs category.

7.32 For the avoidance of doubt, under the procedures outlined in paragraphs 7.30 and 7.31, the Authority can determine a revision to the PCFM Variable Value relating to an uncertain cost category for any Formula Year during the Price Control Period, where that is necessary to reflect the determination (or deeming) of a relevant adjustment in respect of that uncertain cost category.

Part 3 - Notification and direction of revised PCFM Variable Values

7.33 Special Condition 5E provides for the licensee to be notified of any relevant adjustment determinations within 14 days of the making of the determination. However, consistent with the provisions of other Special Conditions providing for the determination of PCFM Variable Values, there is an additional formal procedure for the notification and direction of revised PCFM Variable Values, set out in Part C of Special Condition 5E.

7.34 The Authority will give notice of the PCFM Variable Value revisions that it proposes to direct by 15 November, being at least 14 days before the deadline date for the direction of revised PCFM Variable Values which is 30 November. The notice will confirm that:

- any revised PCFM Variable Value determinations have been made in accordance with Part B of Special Condition 5E, which cross refers to this chapter of the GT1 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 PCFM Variable Value revisions.

7.35 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.

7.36 Further to paragraph 7.28, the Authority will not determine PCFM Variable Value revisions for uncertain cost categories by 30 November in years in which no proposal has been duly made by the licensee or the Authority. However, the overall direction issued in those years will include a facsimile of the PCFM Variable Values Table(s) for the licensee showing the post direction state of all PCFM Variable Values. This will serve to confirm the state of the PCFM Variable Values relating to uncertain cost categories.

Delay in direction of revised PCFM Variable Values

7.37 If the procedures set out in Special Condition 5E and in Parts 2 and 3 of this chapter call for the Authority to direct revised PCFM Variable Values for uncertain cost categories by 30 November and the Authority does not make such a direction, then Special Condition 5E 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 Special Condition 4B (Annual Iteration Process for the GT1 Price Control Financial Model).

8. Incremental entry capacity allowed expenditure - financial adjustment methodology

8.1 Special condition 5F (Determination of incremental obligated entry capacity volumes and the appropriate revenue drivers to apply) contains a mechanism for adjusting the licensee's allowed expenditure in respect of the release of incremental obligated entry capacity.

8.2 When NGG receive a signal that additional firm entry capacity is required at an entry point they will follow a predetermined methodology - see Special Condition 9A (Entry Capacity and Exit Capacity Obligations and Methodology Statements) - to establish how the capacity will be provided. This will be in one of two ways:

- (a) Funded incremental obligated entry capacity; or
- (b) Non-incremental obligated entry capacity provided by entry capacity substitution in accordance with Special Condition 9A.

8.3 This section of the Handbook deals with how allowances for funded incremental obligated entry capacity only are directed.

8.4 For the avoidance of doubt, entry capacity signalled before the start of RIIO-T1 will be dealt with under the appropriate previous regime. Expenditure relating to this signalled supply of capacity is not included in Totex or subject to the Totex Incentive Mechanism.

Temporal convention

8.5 For the purposes of Special Condition 5F, and this chapter, "Formula Year t" means the Formula Year in which a value for the term MOD, calculated through a particular Annual Iteration Process, is used in the formula for the licensee's Base NTS Transportation Owner Revenue.

8.6 Required adjustments are applied through the Annual Iteration Process for the GT1 Price Control Financial Model (PCFM) using revised PCFM Variable Values determined under Special Condition 5F.

Methodology for determining revised PCFM Variable Values for incremental obligated entry capacity expenditure

8.7 Special Condition 5F sets out the procedures governing the determination of additional allowed expenditure for incremental obligated entry capacity. Part A of that condition details the steps that the licensee must follow to obtain funding.

8.8 Part B of Special condition 5F details how the additional Totex allowance for a given Entry point is calculated.

Use of revised PCFM Variable Values in the Annual Iteration Process

8.9 The Authority will direct revised EnCI values by no later than 30 November in each Formula Year t-1 in accordance with Part F of Special Condition 5F. Notice of proposed revised values will be given to licensees at least 14 days before the date of the direction.

Indicative Example

During the first year of RIIO-T1, before the cut-off date for notification, the licensee gives notice that it has received a firm commitment for entry capacity at an entry point during the March 2014 QSEC auction. The licensee confirms that this request cannot be met by a variation to the constraint management target capacity or by substitution of capacity. This capacity is to be delivered in October 2017 (i.e. during Formula Year 2017-18).

The allowed expenditure will already have been calculated based on the unit costs being applied to the investments identified by network analysis to create a £/GWh Unit Cost Allowance.

The allowed expenditure is directed by the Authority, as part of the November 2014 Annual Iteration Process, as additional allowances for Formula Year 2015-16 (20%), Formula Year 2016-17 (80%), and 1 per cent for the remaining years of RIIO-T1.

9. Incremental exit capacity allowed expenditure - financial adjustment methodology

9.1 Special condition 5G (Determination of incremental obligated exit capacity volumes and the appropriate revenue drivers to apply) contains a mechanism for adjusting the licensee's allowed expenditure in respect of the release of incremental obligated exit capacity.

9.2 When NGG receive a signal that additional firm exit capacity is required at an exit point they will follow a predetermined methodology (see Special Condition 9A Entry and Exit Capacity Methodologies and Statements) to establish how the capacity will be provided. This will be in one of two ways:

- (a) Funded incremental obligated exit capacity; or
- (b) Non-incremental obligated exit capacity provided by exit capacity substitution in accordance with Special Condition 9A (Entry Capacity and Exit Capacity Methodologies and Statements).

9.3 This section of the Handbook deals with how allowances for funded incremental obligated exit capacity only are directed.

9.4 For the avoidance of doubt, exit capacity signalled before the start of RIIO-T1 will be dealt with under the appropriate previous regime. Expenditure relating to this signalled supply of capacity is not included in Totex or subject to RIIO-T1 sharing mechanisms.

Temporal convention

9.5 For the purposes of Special Condition 5G, and this chapter, "Formula Year t " means the Formula Year in which a value for the term MOD, calculated through a particular Annual Iteration Process, is used in the formula for the licensee's Base NTS Transportation Owner Revenue.

9.6 Required adjustments are applied through the Annual Iteration Process for the GT1 Price Control Financial Model (PCFM) using revised PCFM Variable Values determined under Special Condition 5G.

Methodology for determining revised PCFM Variable Values for incremental obligated exit capacity expenditure

9.7 Special condition 5G sets out the procedures governing the determination of additional funding for incremental obligated exit capacity. Part A of that condition details the steps that the licensee must follow to obtain funding.

9.8 Part B of Special Condition 5G details how the additional Totex allowance for a given Exit point is calculated.

Use of revised PCFM Variable Values in the Annual Iteration Process

9.9 The Authority will direct revised ExCI values by no later than 30 November in each Formula Year t-1 in accordance with Part F of Special Condition 5G. Notice of proposed revised values will be given to licensees at least 14 days before the date of the direction.

Indicative Example

During the first year of RIIO-T1, before the cut-off date for notification, the licensee gives notice that it has received a firm commitment for exit capacity at an exit point during the July 2013 Exit Application Window. The licensee confirms that this request cannot be met by a variation to the constraint management target capacity or by substitution of capacity. This capacity is to be delivered in October 2016 (i.e. during Formula Year 2016-17).

The allowed expenditure will already have been calculated based on the unit costs being applied to the investments identified by network analysis to calculate a £/GWh Unit Cost Allowance.

The allowed expenditure is directed by the Authority, as part of the 2013 Annual Iteration Process, as additional allowances for Formula Year 2014-15 (20%), Formula Year 2015-16 (80%), and 1 per cent for the remaining years of RIIO-T1.

10. Innovation Roll Out mechanism allowed expenditure - financial adjustment methodology

Innovation roll out mechanism

10.1 The purpose of this chapter of the price control financial Handbook is to set out the methodology to determine revisions to the PCFM Variable Values relating to Innovation Roll-out allowed expenditure ('IRM' values) and the Formula Years to which those revisions relate.

10.2 The provisions for determining revised IRM values are contained in Special Condition 5D (The Innovation Roll-out Mechanism). All IRM values are stated in 2009-10 prices.

10.3 The application of the methodologies set out in this chapter of the Handbook will mean that as a consequence of the Annual Iteration Process, the value of the term MOD as calculated for Formula Year t will result in an appropriate adjustment of the Base NTS Transportation Owner Revenue of the licensee so that it is economically the same as it would have been had the forecast values used in the model been the same as the actual out-turn values.

10.4 The Opening Base Revenue Allowances ('PU' values) for the licensee, set down in the table at Appendix 1 to Special Condition 2A (Restriction of NTS Transportation Owner Revenue) reflect allowed expenditure figures for forecast levels of innovation expenditure. These figures constitute the 'IRM' values contained in the PCFM Variable Values Table of the RIIO-T1 Price Control Financial Model ('PCFM') as at 1 April 2013, the first day of RIIO-T1.

10.5 It may be necessary to revise IRM values during the course of RIIO-T1 so that they represent allowed expenditure levels driven by additional innovation funding. This ensures that the value of the term MOD_t which is calculated through the Annual Iteration Process for the PCFM appropriately reflects updated allowed expenditure on innovation as a component of Totex in:

- (i) fast and slow money allowed revenue calculations; and
- (ii) allowed revenue adjustments under the Totex Incentive Mechanism (see chapter 6).

Temporal convention

10.6 For the purposes of Special Condition 5D, and this chapter, "Formula Year t" means the Formula Year in which a value for the term MOD, calculated through a particular Annual Iteration Process, is used in the formula for the licensee's Base NTS Transportation Owner Revenue.

Determination and direction of revised IRM values

10.7 Part A of Special Condition 5D specifies the features that need to be present in the roll-out of an innovation to qualify for additional allowed expenditure.

10.8 Part B of Special Condition 5D provides for the licensee to propose a relevant adjustment to IRM values.

10.9 Part C of Special Condition 5D (The Innovation Roll-out Mechanism) specifies two periods when these adjustments can be proposed:

- (a) the first application window opens on 1 May 2015 and closes on 31 May 2015; and
- (b) the second application window opens on 1 May 2018 and closes on 31 May 2018.

10.10 For the first application window Ofgem will determine revised IRM values for all Formula Years (if necessary) between 31 July 2015 and 30 November 2015 - the deadline for directing revised IRM values to be used in the Annual Iteration Process which will take place by 30 November 2015 (see chapter 2).

10.11 For the second application window Ofgem will determine revised IRM values for all Formula Years (if necessary) between 31 July 2018 and 30 November 2018 - the deadline for directing revised IRM values to be used in the Annual Iteration Process which will take place by 30 November 2018 (see chapter 2).

10.12 The Authority's direction of revised IRM value by no later than 30 November in each Formula Year $t-1$ will be made in accordance with Part G of Special Condition 5D.

Processing of IRM values under the Annual Iteration Process

10.13 Under the Annual Iteration Process, IRM values, as revised, representing allowed innovation expenditure are allocated to:

- fast and slow money³³ totals in accordance with the Totex Capitalisation Rate (per cent) specified in Special Conditions 5B and 6B; and
- the tax pools associated with innovation expenditure in accordance with the licensee specific tax allocation profile within the PCFM.

³³ See Glossary

10.14 IRM values, as revised, for all Formula Years up to and including Formula Year t are then used with other PCFM variable values under the Annual Iteration Process:

- (i) in calculating the value of the term MOD_t for Formula Year t including:
 - fast money components,
 - amounts of return and depreciation on the licensee's RAV balance,
 - tax allowance effects, and
- (ii) to update Totex related balances held within the PCFM including the licensee's RAV balance.

10.15 Under the Annual Iteration Process described in chapter 2 the effect of revised IRM values directed for Formula Years earlier than Formula Year t flow through to the determination of the value of MOD_t and will have no retrospective effect on previously directed values of MOD. This point is confirmed in paragraph 22 of Special Condition 5D.

10.16 IRM values held in the PCFM for Formula Years later than year t in relation to a particular Annual Iteration Process do not feed into the calculation of the term MOD_t and remain at the forecast levels referred to in paragraph 10.3 pending any subsequent revision. Accordingly, all calculated values in the PCFM for Formula Years later than Formula Year t have indicative status only.

11. Legacy price control adjustments - financial methodologies

Introduction

11.1 The purpose of this chapter of the GT1 Price Control Financial Handbook is to set out the methodologies that are to be used to determine values for each component term ('component term values') in the formulae set out in Part A of Special condition 5A (Legacy price control adjustments – NTS Transportation Owner) and Part A of Special Condition 6A (Legacy price control adjustments – NTS System Operator). The methodologies are set out in Parts 1 to 4 below.

Overview

11.2 The methodologies referred to in paragraph 11.1 are used to determine revised values for PCFM Variable Values, that relate to:

- (a) legacy price control revenue allowance adjustments for Formula Year 2013-14 (LAR and SOLAR values); and
- (b) legacy price control adjustments to RAV³⁴ balance additions for Formula Year 2013-14 (LRAV and SOLRAV values).

11.3 Legacy price control adjustments are necessary, to take account of outturn levels of:

- activities carried out by the licensee;
- incentivised performance by the licensee; and/or
- expenditure incurred by the licensee,

in specified legacy price control adjustment categories during Formula Years prior to 1 April 2013 (the 'legacy period'). These levels will either not have been available, or will not have been confirmed, when the licensee's opening Base NTS Transportation Owner Revenues and Base NTS System Operation Revenues were set. Adjustments might also be necessary to correct other anomalous positions, acknowledged by Ofgem and the licensee.

11.4 The PCFM Variable Values LAR, SOLAR, LRAV and SOLRAV represent the net incremental changes (which may be positive or negative) to revenue allowance and RAV adjustment amounts to reflect legacy outturn levels. It should be noted, however, that revisions to LAR, SOLAR, LRAV and SOLRAV values will also have ancillary effects on other calculations under the Annual Iteration Process which feed into recalculated base revenue figures.

³⁴ See Glossary.

11.5 Each component term value (see Table 11.1) in the formulae for LAR, SOLAR, LRAV and SOLRAV represents the incremental change for a particular legacy price control adjustment category. At the outset of the Price Control Period on 1 April 2013, all LAR, SOLAR, LRAV and SOLRAV values will be zero, because provisional or forecast legacy outturn levels will have been used in modelling the licensee's Opening Base Revenue Allowances.

11.6 The use of revised LAR, SOLAR, LRAV and SOLRAV values for Formula Year 2013-14 in the Annual Iteration Process for the PCFM will mean that values of the terms MOD_t and $SOMOD_t$ will appropriately reflect legacy outturn levels.

11.7 The aggregate revenue allowance adjustments embodied in the LAR and SOLAR terms will be spread evenly across recalculated base revenue figures for the eight years of the Price Control Period by revenue profiling functionality contained in the PCFM. However, there are no provisions to revise LAR, SOLAR, LRAV or SOLRAV values for Formula Years other than Formula Year 2013-14 - all necessary calculations and effects are achieved under the Annual Iteration Process, with appropriate Time Value of Money Adjustments.

11.8 For the avoidance of doubt, legacy price control adjustments are not subject to the Totex Incentive Mechanism.

11.9 Where required a determination of component term values will be carried out during each Formula Year of the Price Control Period, in time to determine any necessary revisions to LAR, SOLAR, LRAV or SOLRAV values for each Annual Iteration Process.

11.10 Legacy outturn values for each legacy price control adjustment category will be applied to a determination of component term values as soon as they become available in accordance with the methodologies set out in parts 1 to 4 of this chapter.

11.12 It might exceptionally be necessary for a legacy outturn value to be restated by the licensee or adjusted by Ofgem after it has been applied to the determination of a component term value because of:

- errors or omissions in the preparation of information or inconsistencies with relevant regulatory instructions and guidance (RIGs); or
- an efficiency review by Ofgem, referred to in one of the methodologies in parts 1 to 4 of this chapter.

In either of those circumstances, the restated/adjusted legacy outturn value would be applied in place of the original value in a subsequent determination of component term values, and reflected in a revision to the relevant PCFM Variable Value for the next Annual Iteration Process.

Legacy price control adjustment categories

11.13 The revised LAR value for any Formula Year from 2013-14 onwards is determined in accordance with the following formula:

$$\text{LAR} = \text{TAR} + \text{CAR} + \text{SAR}$$

11.14 The LRAV value for any Formula Year from 2013-14 onwards is determined in accordance with the following formula:

$$\text{LRAV} = \text{CRAV} + \text{SRAV}$$

11.15 The revised SOLAR value for any Formula Year from 2013-14 onwards is determined in accordance with the following formula:

$$\text{SOLAR} = \text{SOCAR} + \text{SOOIR} + \text{SOSAR}$$

11.16 The SOLRAV value for any Formula Year from 2013-14 onwards is determined in accordance with the following formula:

$$\text{SOLRAV} = \text{SOCRAV} + \text{SOSRAV}$$

11.17 Each component term in the formulae set out in Part A of Special Condition 5A and Part A of Special Condition 6A relates to one of the categories shown in Table 11.1 below.

Table 11.1 – Legacy price control adjustment categories

Category	Special Condition	Component Term	Component in PCFM Variable Value	See Part of this chapter
Gearing levels and corporate debt interest cost adjustments	5A	TAR	LAR	1
Capex Rolling Incentive adjustments	5A	CAR CRAV	LAR LRAV	2
Logged up and security costs adjustments	5A	SAR SRAV	LAR LRAV	3

Capex incentive scheme adjustments (SO)	6A	SOCAR SOCRAV	SOLAR SOLRAV	2
Internal cost incentive (SO)	6A	SOOIR	SOLAR	2
Logged up and security costs adjustments (SO)	6A	SOSAR SOSRAV	SOLAR SOLRAV	3

Conventions

11.18 All component term values will be stated and PCFM Variable Values directed in 2009-10 prices, consistent with the price base used in the PCFM and with directed values for the terms MOD and SOMOD.

11.19 In the remainder of this chapter:

- references to the term MOD should be taken to include SOMOD and references to Special Condition 5A should be taken to include Special Condition 6A; and
- "Formula Year t" means the Formula Year in which a value for the term MOD, calculated through a particular Annual Iteration Process, is used in the formula for the licensee's Base NTS Transportation Owner Revenue and references to Formula Year t-1 etc should be construed accordingly.

Reference documents

11.20 The reference documents (previously published by Ofgem) referred to in this chapter are:

1. Open letter dated 31 July 2009 regarding Clawback of tax benefit due to excess gearing
<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=49&refer=Networks>
2. Transmission TPCR4 final proposals (Ref: 206/06)
[TPCR4 Final Proposals](#)
3. Transmission TPCR4 final proposals – main supplementary appendices (Ref:206/06b)
[TPCR4 Appendices](#)
4. Transmission rollover Final Proposals (Ref 162/11)
[TPCR4Roll-over Final Proposals](#)

Legacy adjustment calculation workbook

11.21 As noted in paragraph 11.5, the modelling of the licensee's Opening Base Revenue Allowances will have included revenue allowances and RAV adjustment values for legacy price control adjustments derived from provisional or forecast legacy outturn levels. Those revenue allowance and RAV adjustment values, represented by fixed input values in the PCFM, will have been established in accordance with applicable licence scheme provisions and, by dint of the PCFM's incorporation into Special Condition 4A (Governance of GT1 Price Control Financial Instruments), the basis for setting those fixed values will have been consulted upon and accepted by the licensee.

11.22 As part of its Final Proposals for the RIIO-T1 price control (see link on page 3 for associated document 'b'), the Authority will provide to the licensee, a legacy adjustment calculation workbook ('calculation workbook') in Excel® format. The calculation workbook will contain a worksheet relating to each legacy price control adjustment category and have functionality to calculate and display component term values.

11.23 The calculation workbook will be designed to perform the calculation of component term values using legacy outturn values, in a way which is consistent with:

- the regimes and licence scheme provisions applicable to each legacy price control adjustment category;
- the calculation and determination of the revenue allowance and RAV addition values for legacy price control adjustments included in the licensee's Opening Base Revenue Allowances;
- references to the use of the calculation workbook in the methodologies set out in Parts 1 to 4 of this chapter.

11.24 For the avoidance of doubt, in the event of any conflict between the licence (including this Handbook) and the content or functionality of a calculation workbook, the stipulation or meaning given in the licence shall prevail.

Part 1 - Determination of component value for legacy gearing level and interest cost adjustments

11.25 This part sets out the methodology for determining the value of the component term TAR, the revenue allowance adjustment relating to the licensee's gearing levels and corporate debt interest costs in the legacy period. Legacy gearing and interest cost adjustments do not affect RAV balance additions.

Description of the adjustment

11.26 In its open letter dated 31 July 2009 (see reference document 1 in paragraph 11.19), the Authority confirmed the approach that would be used to 'clawback' any tax value benefits to the licensee of operating at a level of gearing higher than modelled levels. The methodological approach set out in the letter has been applied in:

- (a) determining the gearing level and interest cost adjustments to be included in the licensee's Opening Base Revenue Allowances; and
- (b) setting out the methodology for the legacy gearing level and interest cost adjustment in this part.

11.27 Save for some procedural details, it is also consistent with the methodology for (RIIO-T1 period) adjustments driven by gearing levels and corporate debt interest costs set out in part 3 of Chapter 4 of this Handbook.

11.28 The legacy gearing level and interest cost adjustments for the transportation owner (TO) and system operator (SO) parts of the licensee's business are dealt with as a combined adjustment through the TAR component term.

11.29 The outturn values needed to calculate legacy gearing level and interest cost adjustments in respect of a particular Formula Year are the licensee's:

- net debt as at 31 March in the Formula Year;
- RAV balance as at 31 March in the Formula Year; and
- actual corporate debt interest payments,

in each case, derived in accordance with the criteria set out in reference document 1 (in paragraph 11.19) from information submissions made by the licensee in accordance with applicable RIGs.

11.30 The RAV balance referred to in this chapter includes both core and non-core³⁵ (or shadow) RAV.

Formula years in the legacy period subject to adjustment

11.31 Finalised net debt, RAV balance and corporate debt interest levels relating to Formula Years up to and including 2011-12 will have been available in time to factor revenue allowance adjustments into the licensee's Opening Base Revenue Allowances, with the revenue allowance amounts being spread across the eight years of the Price Control Period.

11.32 Finalised net debt, RAV balance and corporate debt interest levels relating to Formula Year 2012-13 will not have been available when the licensee's Opening Base Revenue Allowances were set and forecast legacy outturn levels for those items for that year will have been used in setting the licensee's Opening Base Revenue Allowances. A legacy price control gearing level and interest cost adjustment therefore needs to be made to reflect legacy outturn levels for net debt, RAV balance and corporate debt interest costs for Formula Year 2012-13.

11.33 Finalised net debt, RAV balance and corporate debt interest levels relating to Formula Year 2012-13 are expected to be included in the price control review information submission that the licensee will make by 31 July 2013.

³⁵ See Glossary

Determination of the value of the component term TAR

11.34 The steps set out in paragraphs 11.34 to 11.38 below will be followed to determine the value of the component term TAR.

Step 1

11.35 After 31 July 2013, Ofgem will obtain from price control review information submissions relating to Formula Year 2012-13 the licensee's:

- net debt balance as at 31 March in Formula Year 2012-13;
- RAV balance as at 31 March in Formula Year 2012-13; and
- actual corporate debt interest payments in Formula Year 2012-13.

Step 2 Use of the legacy adjustment calculation workbook

11.36 The legacy outturn values, in nominal terms, obtained under step 1 will be used to overwrite the forecast legacy outturn values for Formula Year 2012-13 on the TAR worksheet of the calculation workbook.

11.37 Using the legacy outturn values, the calculation workbook is designed to:

- a) perform a gearing level test - if actual gearing (net debt/RAV balance) is lower than the 60.0% gearing levels in the TPCR4 Price Control model, then the gearing level and interest cost adjustment for 2012-13 will be zero; and
- b) perform a positive benefit test – ie deduct from the actual corporate debt interest payments in 2012-13 the level used in the modelling of the licensee's base revenue for Formula Year 2012-13 (treating both values as positive values). If this results in a positive value this will be the benefit. If the result is zero or negative, then the gearing level and interest cost adjustment for 2012-13 will be zero.

11.38 If neither of the circumstances in sub-paragraphs 11.36(a) or (b) result in a zero value the clawback has been triggered.

11.39 If the clawback has been triggered, Ofgem will multiply the result in paragraph 11.36 (b) by the corporation tax rate for the licensee (as hard-coded into the legacy workbook) to derive the licensee's benefit figure. This will be deflated into 2009-10 prices. The functionality in the calculation workbook compares this revised calculated amount with the forecast used in setting the licensee's Opening Base Revenue Allowances. It then calculates the incremental adjustment amount which will be shown as the value for the component term TAR.

Restatement or adjustment of values used in the determination of TAR

11.40 As set out in paragraph 11.9 of this chapter, a determination of each component term value will be carried out if required during each Formula Year of the Price Control Period. If, exceptionally, it is necessary for one or more of the values referred to in step 1 above to be restated or adjusted after its use in a determination of the component term TAR, the value of TAR would be re-determined using the restated/adjusted values for the purpose of determining a revision to the PCFM Variable Value LAR, for use in the next available Annual Iteration Process.

Part 2 – Determination of component values for legacy capex incentive scheme adjustments

11.41 The purpose of this part is to set out methodologies to determine:

- the component terms CAR and CRAV relating to legacy period Transportation Owner capital expenditure incentive scheme adjustments;
- the component terms SOCAR and SOCRAV relating to legacy period System Operator expenditure incentive scheme adjustments; and
- the component term SOOIR relating to legacy period System Operator internal costs incentive adjustments.

Determination of CAR and CRAV values for the TPCR4 period

11.42 Capex Rolling Incentive means the mechanism giving rise to the baseline capital expenditure incentive revenue adjustment term, CxIncRA_t in Special Condition C8B of the licence in the form it was in on 31 March 2013. A provisional calculation of this term was made as part of the TPCR4 rollover settlement (see reference document 4) based on the forecast expenditure and output delivery for the final years of TPCR4. This provisional adjustment was funded in the TPCR4 rollover settlement subject to a review of capex for efficiency, adjustment for actual expenditure in 2011-12, and confirmation of which outputs had been delivered. The capex efficiency review is scheduled to be made following reporting of the rollover year data so that all 6 years can be reviewed together. At that point this calculation will be revised.

11.43 Special Condition C8B sets out the calculation of the capital expenditure adjustment term but this can be summarised as the sum of two calculated values, as summarised in paragraphs 11.46 and 11.52.

11.44 The first value is calculated as the indexed value of the sum of the incentive sharing factor (CIR) less 0.25, times the present value factor (PVF), times the difference between base capex allowance (BC) and efficient outturn capex (AC).

11.45 The second is calculated as the indexed value of the sum of the sharing factor (CIR) multiplied by the present value factor times the excess cost of Milford Haven (up to a maximum of £75m in 2004-05 prices).

11.46 The calculations will be shared with the licensee in the calculation workbook.

11.47 To revise the calculation Ofgem amend the workbook to:-

- Update for actual allowed capex (less any deemed inefficient)
- Recalculate the profile of adjustments to be made
- Compare to original values and calculate differences
- Apply the appropriate sharing factors to over or underspend
- Uplift differences for Time Value of Money Adjustment at the appropriate pre-tax WACC (ie TPCR4 pre-tax WACC and TPCR4RO pre-tax WACC as necessary).

11.48 This calculation (together with the calculation for the TPCR4 Rollover) provides the CAR constituent part of LAR.

11.49 The workbook "RIIO-T1 legacy calculations" also shows the calculation of CRAV. Revised allowed capex spend (for both the TPCR4 and TPCR4 Rollover periods) will give rise to amendments to RAV.

11.50 The RAV adjustment required is calculated by comparing the actual efficient capex to that assumed in the modelling of final proposals. This value (net of any depreciation) will form the RAV adjustment for the TPCR4 capex incentive part of the CRAV term. Additionally any other differences from the Final Proposals assumed additions will be adjusted for in this calculation. This will include the impact of any disposals in earlier years.

Determination of CAR and CRAV values for the TPCR4 Rollover period

11.51 Special condition C8B sets out the calculation of the capital expenditure adjustment term for the Rollover year (2012-13). The approach is similar to that used for the full TPCR4 period.

11.52 Again the calculation is as set out in the calculation workbook and the detail for the licensee is shown there.

11.53 To summarise the adjustment for actual performance in Formula Year 2012-13 (the rollover year) we will:

- Use allowances and actual spend for 2012-13 (less any deemed inefficient) in a consistent price base
- Allow for outputs actually delivered and any consequent change to work in progress.
- Compare to original values and calculate differences

- Apply the appropriate sharing factors to over or underspend
- Uplift differences for Time Value of Money Adjustment at the appropriate pre-tax WACC (ie TPCR4 pre-tax WACC and TPCR4RO pre-tax WACC as necessary).

11.54 Revised allowed capex spend will give rise to amendments to RAV. The RAV adjustment required is calculated by comparing the actual efficient capex to that assumed in the modelling of final proposals. This value (net of any depreciation) will form the RAV adjustment for the TPCR4 rollover capex incentive part of the CRAV term.

Determination of SOCAR and SOCRAV values

11.55 This section sets out the basis for determining the component terms SOCAR and SOCRAV which reflect differences between actual efficient capital expenditure levels and forecast levels for the System Operator part of the licensee's business.

11.56 The TPCR4 and rollover sharing mechanism relating to the system operator part of the licensee's business provided for the licensee to bear or retain a share of any over or underspend of capex allowances with consumers by adding or deducting the shared portion to RAV. The value of the SOCRAV term will be calculated using the following steps:

- Taking the original calculation of additions to RAV and noting the RAV additions profile (ie efficient capex plus incentive)
- Updating the actual efficient expenditure as required
- Comparing actual efficient expenditure to allowances and deducting 25 percent of overspend from the costs incurred/adding back 25 percent of underspend to the costs incurred to give a revised RAV additions profile
- Calculating the difference in profiles between the original profile and revised profile
- Summing the differences (less depreciation) to arrive at the SOCRAV term.

11.57 A value will only be ascribed to the SOCAR component term where that is necessary to reimburse amounts of allowed revenue, due to the licensee under legacy period System Operator expenditure incentive scheme adjustments, which would not be included in the effects of a revision to the SOCRAV component term.

Determination of SOOIR values

11.58 The SOOIR component term represents any allowed revenue adjustment relating to legacy period System Operator internal costs incentive. However, it is not expected that any adjustments in this respect will be required during the Price Control Period.

Part 3 – Determination of component value for logged up and security costs adjustments relating to the legacy period

11.59 The purpose of this part is to set out the methodology to determine the revised PCFM Variable Components (SAR, SRAV, SOSAR & SOSRAV) relating to logged-up and security costs.

Description of the TPCR4 Logged-up and Security costs

11.60 TPCR4 Special Condition C8B (NTS transportation owner activity revenue restriction) paragraph 3 'Maximum NTS transportation owner revenue' (in the form that it was in on 1 April 2012) states that "LCt means the revenue adjustment term, whether of a positive or of a zero value, in respect of the full recovery of efficiently incurred logged up costs (adjusted for financing costs) which in all formula years shall take the value zero except for the formula year commencing on 1 April 2012 for which it shall take a value being the total of the operating expenditure and the depreciation and return of the capital expenditure incurred by the licensee in the period 1 April 2007 to 31 March 2012, and reported to the Authority in accordance with Standard Special Condition A40 (Price Control Review Information) in force at 31 March 2013 in respect of Quarry and loss of development claims subject to the licensee satisfying the Authority that such costs have been efficiently incurred."

11.61 For RIIO-T1 we have calculated provisional values for logged up items up to 2011-12 and funded these in RIIO-T1 allowances (subject to the review of these costs for efficiency). Logged up costs incurred in the rollover year will need to be allowed for following submission of the rollover year RRP and the TPCR4 efficiency review.

Calculation of TPCR4 Logged-up and Security costs adjustment

11.62 Following an efficiency review of the logged up and security costs incurred in the period 1 April 2012 to 31 March 2013 and reported to the Authority in accordance with Standard Special Condition A40 in force at 31 March 2013, the actual efficiently incurred logged up costs will be price index adjusted to RIIO-T1 base year prices and Time Value of Money Adjustments applied.

11.63 These costs will potentially be made up of opex and capex adjustments. Where these costs are of opex, or the depreciation and return on capex they will be funded as revenue allowance in RIIO-T1.

11.64 These calculations are shown in the workbook "RIIO-T1 legacy calculations".

11.65 The TPCR4 Logged-up and Security costs revenue adjustment will form the SAR component in the LAR PCFM variable value for 2013-14.

11.66 The TPCR4 Logged-up and Security costs RAV adjustment will form the SRAV component in the LRAV PCFM variable value for 2013-14.

Part 4 – Statement of component values and determination and direction of revised PCFM Variable Values

11.67 Parts A and B of Special Condition 5A provide for the determination of revised PCFM Variable Values for Formula Year 2013-14, that relate to legacy price control adjustments, for use in the Annual Iteration Process. Determinations will be made by 30 November in each Formula Year using the formulae set out in Part A of Special Condition 5A and component term values determined in accordance with Part B of that condition and the methodologies set out in parts 1 to 3 of this chapter.

11.68 All of the outturn values needed to finalise legacy price control adjustments should be available by 31 July 2013. This means that they can be used in the determination of revised PCFM Variable Values for the Annual Iteration Process that will take place by 30 November 2013. It should only be necessary to make subsequent revisions to those PCFM Variable Values where price control review information relating to the legacy period is restated in accordance with relevant licence conditions and/or RIGs documents. The effect of any such subsequent revisions will, subject to a Time Value of Money Adjustment, be included in the calculation of the term MOD_t in relation to the Annual Iteration Process concerned.

11.69 A determination of PCFM Variable Values relating to legacy price control adjustments will be made by 30 November in each Formula Year and the overall direction of PCFM Variable Values revisions for each Annual Iteration Process will include a facsimile of the PCFM Variable Values Table(s) for the licensee. This will confirm the post direction state of PCFM Variable Values relating to legacy price control adjustments.

11.70 Part C of Special Condition 5A sets out the procedure to be used for the direction of revised PCFM Variable Values relating to legacy price control adjustments. It specifies that:

- (a) the direction of revised PCFM Variable Values must be made by 30 November in each Formula Year $t-1$;
- (b) the direction must include a statement of the component term values used in the determination of any revised PCFM Variable Values;
- (c) the licensee must be given at least 14 days notice of any revisions to PCFM Variable Values that the Authority proposes to direct; and
- (d) the Authority must have due regard to any representations or objections made by the licensee during the period referred to in sub-paragraph c) and give its reasons for any decisions made in relation to them.

11.71 If, for any reason, in any Formula Year $t-1$, the Authority does not make a required direction of revised PCFM Variable Values relating to legacy price control adjustments, Part C of Special Condition 5A specifies that the Authority must direct the values concerned as soon as is reasonably practicable thereafter.

Appendix 1 - Glossary

A

Annual iteration Process

The Annual Iteration Process is the process of annually updating the variable (bluebox) values in the PCFM and running the PCFM calculation functions in order to provide updated MOD and SOMOD values.

B

Base Annual PSED Allowance

See Chapter 3, para 3.29-3.30

C

Capitalisation rate

The rate at which totex is added to RAV (ie treated as slow money). There are two rates for the TO business, a base rate and an uncertainty mechanism rate. The base capitalisation rate refers to the rate used for all relevant expenditure not dealt with under the uncertainty mechanism capitalisation rate. The uncertainty rate is applied to expenditure/ allowances under the following headings:

- Uncertainty mechanisms as described in Special Conditions 5E and 6D
- Incremental entry capacity as described in Special Condition 5F
- Incremental exit capacity as described in Special Condition 5G

Cut-Off Date

Means 31 March 2010 for DNOs, 31 March 2013 for GDNs and 31 March 2012 for TOs and SOs, see Chapter 3, para 3.6.

D

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.

F

[Fast money](#)

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.

[Financial Reporting Council \(FRC\)](#)

The FRC is the body which issues Accounting Standards in the UK. It is recognised for that purpose under the Companies Act 2006.

[Formula year](#)

A year beginning on 1 April to which the provisions of this Handbook apply.

[Funding Adjustment Rate](#)

This is the percentage calculated as $1 - \text{Totex Incentive Strength Rate}$.

G

[GT1](#)

Prefix/Suffix designating an item relevant to the RIIO-T1 (gas transmission) price control review which will be applicable for the eight years running from 1 April 2013.

[GT1 Price Control Financial Model \(PCFM\)](#)

The model of that name (with a Formula Year suffix: "November 20XX" (where 20XX represents the calendar year containing the month of November in Formula Year t-1)):

- (a) that is represented by a workbook in Microsoft Excel ® format maintained under that name (with a Formula Year suffix as above) on the Authority's website; and
- (b) that the Authority will use to determine the values of the terms MOD and SOMOD through the application of the Annual Iteration Process,

as modified from time to time, whether under Special Condition 4A or otherwise.

The PCFM calculates amounts to be added to the licensee's Opening Base Revenue Allowances through an Annual Iteration Process to derive a recalculated base revenue value - see chapters 1 and 2.

M

[MOD Term \[TO and SO\]](#)

The term of that name included in the formula for Base NTS Transportation Owner Revenue set out in Special Condition 2A of the Gas Transporters licence. It represents an amount added to the licensee's Opening Base Revenue Allowance for the Formula Year concerned, to derive a recalculated base revenue value, ascertained in accordance with the methodologies set out in this Handbook. The value of the MOD term is calculated through the Annual Iteration Process for the GT1 Price Control Financial Model (see Chapter 2) and is specified in a direction given by the Authority by 30 November in each Formula Year.

N

[Non-core RAV](#)

See Shadow RAV.

[NPV](#)

Net present value.

O

[Ofgem](#)

The Office of the Gas and Electricity Markets Authority.

P

[Pensions Allowance](#)

See Chapter 3, para 3.2.

[Pension Protection Fund](#)

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 Scheme Administration and PPF levy](#)

See Chapter 3, para 3.15

[Pension Scheme Established Deficit](#)

The difference between assets and liabilities, determined at any point in time, attributable to pensionable service up to the end of the respective Cut-Off Dates and relating to Regulated Business Activities under Pension Principle 2. The term applies equally if there is a subsequent surplus

Pension Scheme Established Deficit Adj (PSED_{ADJ})

A different value (PSED_{ADJ}) substituted for the PSED for the purposes of the methodology in this handbook. The Authority may, following bilateral discussions, agree with the licensee that a different value be substituted for the PSED.

Pension scheme incremental deficit

The difference between the assets and liabilities, determined at any point in time, attributable to post Cut-Off Date pensionable service and relating to Regulated Business Activities. The term also applies equally where there is a surplus for the post Cut-Off Date regulated Notional incremental deficit sub-fund

Pre tax WACC

Whilst we generally use a vanilla WACC to set allowed returns, in certain circumstances the return allowed is set with reference to a pre-tax WACC, e.g. on TPCR4 revenue drivers. This pre-tax WACC will be set out in the relevant schemes and comprises a pre-tax cost of debt and a pre tax cost of equity weighted together by the gearing level.

Q

Qualifying Workplace Pension Schemes

See Qualifying Schemes in the Pension Act 2008³⁶

R

RAV – Regulatory Asset Value

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

Reasonableness Review

See Chapter 3, para 3.47-3.54

RIIO

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

RIIO-T1 (Gas and Electricity Transmission)

The price control arrangements which will apply to Gas and Electricity Transmission licensees from 1 April 2013 until 31 March 2021.

S

³⁶ http://www.legislation.gov.uk/ukpga/2008/30/pdfs/ukpga_20080030_en.pdf

Scheme Administration Costs

Costs associated with Pension Scheme Administration and PPF levy which are attributable to the licensee's regulated business. See Chapter 3, para 3.15-3.16.

Scheme Valuation Datasets

Data relating to each defined benefit scheme for the purpose of the triennial reasonableness review and the resetting and true up of allowances. See also Chapter 3, para 3.9.

Shadow RAV

Refers to expenditure, already incurred, which has not yet been admitted to the licensee's formal RAV balance, but which is expected to be admitted at a future point. This is also referred to as "non-core RAV".

Slow money

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

SO

NGG as the gas system operator has responsibility to construct, maintain and operate the NTS and associated equipment in an economic, efficient and co-ordinated manner. NGET as the electricity system operator has responsibility to construct, maintain and operate the NETS and associated equipment in an economic, efficient and co-ordinated manner. In their roles as SOs, NGG and NGET are responsible for ensuring the day-to-day operation of the transmission systems.

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

TO

Transportation Owner - for the purposes of this handbook means National Grid Gas plc, the company which holds the Gas Transporter Licence in respect of the NTS.

Totex

See Chapter 6 paragraphs 6.20 to 6.23.

Totex Capitalisation Rate

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

Totex Incentive Mechanism (TIM)

TIM is the financial reward (or penalty) that companies are given in allowances for under or over spend on uncertain projects. For RIIO-T1 Final Proposals 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). If actual (outturn) expenditure differs from allowances, for any Formula Year during the Price Control Period, the TIM provides for an appropriate sharing of the incremental amount (whether an overspend or underspend) between consumers and licensees.

Totex Incentive Strength Rate (incentive strength)

The incentive strength is a percentage figure specified in Special Conditions 5B (Determination of PCFM Variable Values for Totex Incentive Mechanism Adjustments – NTS Transportation Owner) and 6B (Determination of PCFM Variable Values for Totex Incentive Mechanism Adjustments – NTS System Operator). It represents the percentage that the licensee bears in respect of an overspend against allowances or retains in respect of an underspend against allowances.

TPCR4 (Gas and Electricity Transmission)

The RPI-X type price control arrangements which applied to gas and electricity transmission licensees from 1 April 2007 to 31 March 2013.

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 Valuation

A report, prepared and signed by the Scheme Actuary, which updates a Triennial Valuation to a later date. This is further defined in the Energy Network Operators' Price Control Pension Costs - Regulatory Instructions and Guidance: Triennial Pension Reporting Pack supplement including pension deficit allocation methodology.

V

Vanilla WACC – see WACC

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 - i.e. the percentage charge levied by lenders, and
- the post tax cost of equity - i.e. 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 is not taken into account in the determination of the Real Vanilla WACC percentage.

In limited circumstances we also use a pre-tax WACC (see Pre-tax WACC).