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for all gas and electricity customers

GT1 Price Control Financial Handbook

This handbook and the constituent methodologies are early working draft copies. The copies provided are internal working drafts, under development and should be regarded very much as a work-in-progress, subject to change.

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Overview:

This is the GT1 Price Control Financial Handbook which forms part of Special Condition GTC 57 (Governance of 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 update the licensee's base revenue allowances during the course of the RIIO-T1 price control period;

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 GTC 57.

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

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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 revenue allowances typically representing over 80% 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 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 Price Control Licence Condition GTC 57) 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

   [Hyperlink]

b. RIIO-T1 Price Control Final Proposals

   [Hyperlink]

c. Statutory Consultation on RIIO-T1 licence conditions

   [Hyperlink]

Contents

Introduction

The GT1 Price Control Financial Handbook (this handbook) is one of the Price Control Financial Instruments referred to in Special Condition GTC 57 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 revenue will be calculated. It also contains the Price Control Financial Methodologies ('the methodologies'), specified in relevant price control licence 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 revised PCFM Variable Values.

This handbook, the constituent methodologies and the PCFM (together the Price Control Financial Instruments) form part of Special Condition GTC 57. 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 RIIO 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 price control licence special conditions;
- it provides for consistent treatment of the Totex[1] aspects of the price control;
- it maintains transparency on adjustments to base revenues, since the licence, methodologies, PCFM and variable values will be published; and
- it allows stakeholders to keep abreast of allowed revenue levels and to carry out business sensitivity analysis.

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

(i) the licence,

(ii) the methodologies, and

(iii) the PCFM.

[1] Total Expenditure – see Glossary

Terms used in this handbook

References to the Authority and Ofgem

The Gas and Electricity Markets Authority ("the Authority") is established by section 1 of and Schedule 1 to the Utilities Act 2000. The Authority's staff are based at the Office of the Gas and Electricity Markets ("Ofgem")

In this handbook the text refers to:

- 'the Authority' when an action or decision must be taken by the Authority itself as a "reserved matter" (or by a committee or individual with delegated authority to so act on its behalf); and
- 'Ofgem' when an action or decision relating to a "non-reserved matter" is to be taken by one or more of the Authority's staff under delegated authority or a regime or protocol approved by the Authority.

Other terminology

Throughout this handbook:

- 'the licence' means the Gas Transporter Licence held by National Grid Gas plc in respect of the national gas transmission system;
- 'this handbook' means the GT1 Price Control Financial Handbook;
- '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 gas transmission system; and
- 'price control period' means the RIIO-T1 price control period which runs from 1 April 2013 to 31 March 2021.

References to the term 'TOMOD' in chapters 1 and 2 should be taken to include the term SOMOD which relates to System Operator activities and associated references should be considered accordingly.

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. The Special Conditions specify the Transmission Owner (TO) and System Operator (SO) opening base revenue[2] levels 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 incremental changes to the licensee's opening base revenues for each formula year so that the updated base revenue allowances 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 allowed Totex[3] 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 'TOMOD' which is then applied as shown in the simplified formula below:

Base Revenue for year t = opening base revenue for year t + TOMOD for year t.

Price base

1.4. The PCFM works predominantly in a constant 2009-10 price base. This is consistent with the opening base revenue values set down in the licence. The value of the term TOMOD is calculated in 2009-10 prices. Indexation is provided for in the base revenue formula set out in the special conditions.

1.5. Some tax calculations internal to the PCFM use nominal prices, based on embedded RPI forecast data. Interest cost and tax allowance calculations relate to the licensee's accounting profit and loss position. Since, for regulatory purposes,

[2] Base Revenue is the largest component of the licensee's overall Allowed Revenue

[3] see Glossary

this is considered in nominal prices, the use of nominal prices in the PCFM tax calculations ensures that revenue allowance calculations more accurately reflect the profile of tax expenses of the licensee.

Temporal convention

1.6. As indicated above, the TOMOD term is used to adjust the opening base revenue figure for each formula year t during the price control period[4]. References in this handbook to formula years are made relative to that usage. For example, in a context where $TOMOD_t$ applied in the formula for base 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

1.7. The PCFM exists as a constituent part of Special Condition GTC 57 (Governance of GT1 Price Control Financial Instruments). It has an input area containing both fixed values and a PCFM Variable Values table. The base 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.

1.8. At the outset of the price control period, the base revenue figures calculated by the PCFM, using the variable values subsisting at that time, constitute the opening base revenue values for the licensee. Before the calculation of opening base revenues are performed, Ofgem will commission an external audit of the functionality of the PCFM.

1.9. By 30 November in each formula year t-1[6], 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.

1.10. 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 or objections. The Authority will then (by 30 November in formula year t-1) 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.

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[4] In 2013-14, the first year of the price control period, the licence specifies that the value of TOMOD is zero.

1.11. Ofgem will then carry out the Annual Iteration Process:

- directed revisions to 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 base revenue figure for each licensee for each formula year of the price control period, and
  - the modelled RAV balance for the licensee;
- the PCFM will output the value of TOMOD for formula year t for the licensee.

1.12. The output value of $TOMOD_t$ for the licensee will reflect the difference between the recalculated base revenue figures for the licensee held in the PCFM before the Annual Iteration Process and the recalculated base revenue figures for the licensee held in the PCFM after the Annual Iteration Process recalculations. The PCFM calculations will apply appropriate time value of money[5] adjustments to the calculation of $TOMOD_t$, so that the licensee will be in the same position as if adjustments to base revenue for years prior to formula year t had been notified to it in the formula year concerned.

1.13. Changes to base revenue figures calculated under the Annual Iteration Process may be upwards or downwards and, accordingly, the value of $TOMOD_t$ may be positive or negative. A key point to note is that once the value of TOMOD 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 value for the same year.

1.14. The steps of the Annual Iteration Process are specified in Special Condition GTC 26 (Annual Iteration Process for the GT1 Price Control Financial Model).

1.15. The Authority will issue a direction to the licensee giving the value of $TOMOD_t$ by 30 November in each formula year t-1[6]. In practice, it is expected that the value of $TOMOD_t$ will be included in the direction of revised PCFM Variable Values referred to in paragraph 1.10. The value of MOD in the direction will be stated in £m to one decimal place.

1.16. The deadline of 30 November in formula year t-1 for the direction of PCFM Variable Value revisions and for the value of $TOMOD_t$ reflects:

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[5] See Glossary

[6] The first such direction will be given by 30 November 2013.

- 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 base revenue for formula year t, in time to calculate and issue its indicative use of system charges by 31 December in formula year t-1.

1.17. In the unlikely event that the Authority does not direct a value for $TOMOD_t$ by 30 November in formula year t-1, paragraph [•] of Special Condition GTC 26 specifies that the value must be directed as soon as possible thereafter and that, in the meantime, the value of $TOMOD_t$ shall be held to be equivalent to the value of $TOMOD_{t-1}$.

State of the GT1 Price Control Financial Model

1.18. As mentioned in paragraph 1.7, the PCFM exists as a constituent part of Special Condition GTC 57 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 GTC 57 (Governance of GT1 Price Control Financial Instruments).

1.19. Ofgem will keep a log of modifications to the PCFM.

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

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

The model is designed to be as 'user friendly' as possible for this purpose.

1.21. An updated copy of the PCFM will be uploaded to the website by 30 November each year (after each Annual Iteration Process) and the file will be named "GT1 Price Control Financial Model 20XX-XX".

Error of functionality in the PCFM

1.22. In the unlikely event that an error of functionality is discovered in the PCFM, the following procedures 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 TOMOD, 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 TOMOD;
- the procedure in Special Condition GTC 57 for modifications to the PCFM would be followed.

The GT1 Price Control Financial Model Working Group

1.23. 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.

1.24. In accordance with the provisions of Part A of Special Condition GTC 57 (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

1.25. The purposes of the working group are:

(i). to review the ongoing effectiveness of the PCFM in producing a value for the term TOMOD for each formula year that appropriately adjusts the licensee's opening base revenue so that its allowed expenditures and performance under incentive schemes are properly reflected;

(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 GTC 57; and

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

Composition

1.26. 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

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

1.28. 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 1.25(ii)).

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

1.30. 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

1.31. 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 under which values of the term $TOMOD_t$ 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 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 GTC 57 (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 1 below.

Table 1

No	PCFM Variable Value	Special Condition	Description	Type of variable value
	Specified financial adjustments			
1	TOEDE SOEDE	27/65	Pension scheme Established Deficit	revenue allowance
2	TOAPFE SOAPFE	27/65	Pension scheme administration and PPF levy	revenue allowance
3	TOTTE SOTTE	27/65	Tax liability – tax trigger events	revenue allowance
4	TOTGIE SOTGIE	27/65	Tax liability – gearing/interest costs	revenue allowance

No	PCFM Variable Value	Special Condition	Description	Type of variable value
5	TOCDE SOCDE	27/65	Allowed percentage cost of debt	Percentage
	Totex incentive mechanism			
6	TOALC SOALC	47/66	Actual load related capex expenditure	actual expenditure
7	TOARC SOARC	47/66	Actual asset replacement capex expenditure	actual expenditure
8	TOAOC SOAOC	47/66	Other actual capex expenditure	actual expenditure
9	TOACO SOACO	47/66	Actual controllable opex	actual expenditure
10	TOANC SOANC	47/66	Actual non-operational capex	actual expenditure
11	TOACC SOACC	47/66	Contributions received	actual revenues (negative value)
	Allowed Totex expenditure adjustments			
12	IAE	28/117	Uncertain costs (site security and flood/erosion protection)	allowed expenditure
13	tbc	C8	Entry/exit capacity drivers	allowed expenditure
14	tbc	69	Network flexibility	allowed expenditure
15	IRO	9	Innovation roll out mechanism	allowed expenditure
	Legacy price control adjustments			
16	PAR/PRAV	64/tbc	Pension true-up	true-up revenue allowance and RAV additions
17	TAR	64/tbc	Tax claw back	true-up revenue allowance
18	CAR/CRAV	64/tbc	Capex incentive scheme	true-up revenue allowance and RAV additions
19	DAR/DRAV	64	Incremental capacity revenue drivers	true-up revenue allowance and RAV

No	PCFM Variable Value	Special Condition	Description	Type of variable value
				additions
20	SAR/SRAV	64	Logged up and security costs	true-up revenue allowance and RAV additions

2.6. Overviews of the specified financial adjustments referred to in rows 1 to five of Table 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 11 in Table 1) applies to any overspend of underspend 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 12 to 15 in Table 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 relate to activities which took place in price control periods prior to RIIO-T1 but in respect of which a financial adjustments may be required because:

- the outturn data for formula year 2012/13 were not available when opening base revenues for the RIIO-T1 price control period were set;
- cost totals for items subject to true-up or logging-up were not available when opening base revenues for the RIIO-T1 price control period were set; or
- it is possible for pre-RIIO-T1 expenditure allowances to be adjusted under the terms of a RIIO-T1 special condition.

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 1 are processed under the Annual Iteration Process for the PCFM in the following ways:

<u>Allowed expenditure</u>

These amounts are modelled, subject to the regulatory capitalisation rate, as:

- fast money – flowing directly to the 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 cost of capital return, depreciation and Totex incentive mechanism.

<u>Revenue allowance</u>

These amounts flow directly to the 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).

<u>Percentage</u>

This type of variable value applies to the cost of corporate debt only and revised values for formula year t will flow into calculations of the return on RAV component of slow money.

<u>Actual expenditure</u>

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 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 so that they are consistent with the 2009-10 price base used in the PCFM.

<u>True-up revenue allowance</u>

These amounts will usually flow directly to the base revenue figure for formula year 2013-14, because they relate to activity levels or outturn values for price control periods prior to RIIO-T1.

<u>True-up RAV additions</u>

These additions to the licensee's RAV will usually apply to formula year 2013-14, because they relate to activity levels or outturn values for price control periods prior to RIIO-T1, and generate a slow money adjustment to allowed revenues through the cost of capital return, depreciation and Totex incentive mechanism.

2.11. During the Annual Iteration Process, appropriate automatic adjustments are also made as a consequence of revised PCFM Variable Values and the treatment summarised above. For example, increased levels of allowed Totex expenditure may result in an increased allowance to cover the licensee's notional equity issuance costs, in accordance with RIIO-T1 Final Proposals.

Atypical revisions

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 Value for the allowed percentage cost of debt (row 5 in Table 1) the normal sequence would be:

- data obtained for a trading days period up to 31 October in formula year t-1;
- TOCDE and SOCDE values for formula year t and each subsequent formula year revised to reflect new cost of debt (see chapter 5 for methodology);
- effect of revision flows through to calculation of value of $TOMOD_t$ and $SOMOD_t$.

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. Pensions – allowed expenditure financial adjustment methodology

Overview

Pension allowances

3.1. The opening base revenue allowances ('PU' values) for the licensee set down in the table at Appendix 1 to Special Condition GTC 20 (Restriction of Transmission Transportation Activity Charges) includes allowances for:

(a) pension scheme established deficit allowed expenditure ('EDE'); and

(b) pension scheme administration expenses and Pension Protection Fund (PPF) levy allowed expenditure ('APFE').

3.2. Opening EDE and APFE allowances are denoted in £m (in 2009-10 price base) and are based on modelling assumptions and parameters applicable at the outset of the price control period consistent with our pension principles. The EDE and APFE values include and true-up amounts for the RIIO-T1 period although these will be zero initially. True-up amounts relating to previous price controls are dealt with as set out in chapter 11.

3.3. Licensees actual pension deficit funding amounts are likely to change during the price control as the result of the triennial formal valuations and changes in market conditions. PPF levies may change based on the Pension Protection Fund published methodology and its future funding requirements. Both of these allowances will be updated on a triennial cycle commencing with formula year 2015-16. Allowances will also be adjusted to true-up for any differences between the allowances provided and the actual payments made into the pension scheme, subject to being efficient, applicable to the regulatory business and in accordance with our pension principles from 1 April 2012.

3.4. A materiality threshold is applied to changes in and true-up of both pension scheme administration expenses and Pension Protection Fund levies. The threshold for both individually was set at Final Proposals at £1m per annum for each transmission business.

Temporal conventions

3.5. For the purposes of Special Condition GTC 27, Special Condition ETC 65, 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 transmission revenue[7].

Annual Iteration process

3.6. The updating of allowances for funding the established pension deficit, scheme administration costs and PPF levies is carried out through the Annual Iteration Process of the RIIO-T1 Price Control Financial Model. The Variable Values Table (VVT) for the licensee contained in the RIIO-T1 PCFM contains rows for PCFM Variable Values for pension deficit funding and separately for scheme administration and PPF levies.

3.7. As at 1 April 2013, the values for each formula year will be as determined at Final Proposals. Part B of Special Conditions GTC 27 and GTC 65 (Specified financial adjustments) provide for any revisions to EDE and APFE values to be directed after determination under the methodologies set down in this chapter.

3.8. Revisions to EDE and APFE values feed directly into the recalculated base distribution revenue figures (PU_t plus MOD_t) for applicable formula years through the annual iteration Process of the GT1 PCFM. Incremental changes to recalculated base revenue figures for years earlier than formula year t will, subject to a time value of money adjustment, be brought forward and reflected in the calculation of the term MOD to be directed for 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.

Pension Principles

3.9. Our pension principles set out some important principles that apply to our approach for setting pension related allowances and these are attached as annex 1 to this chapter. These include:

- Customers should expect to fund the efficient cost of providing a competitive employment package including pensions costs in line with comparative benchmarks

- Customers should only fund the portion attributable to the regulated business

- Customers should not fund costs arising from a material failure of stewardship

- Pension costs should be assessed using actuarial approaches using reasonable assumptions in line with current best practice

[7] See Special Condition ETC 20 (Restriction of Transmission Transportation Activity Charges).

- Under or over funding in prior period should be reflected subject to being economic and efficient

- Customers should not fund pension cost arising from severance that have not been fully matched by contributions

Timetable

3.10. Applying the triennial update cycle, EDE and ADFE values will be updated twice during RIIO-T1 as set out in column D of table [3.1] below.

Table [3.1]

A	B	C	D
Actuarial pension scheme valuation as at:	Pension reasonableness review completed no later than:	EDE and ADFE values directed no later than:	Date EDE & ADFE revised allowances applied during RIIO-T1:
31 March 2013	30 September 2014	30 November 2014	1 April 2015
31 March 2016	30 September 2017	30 November 2017	1 April 2018
31 March 2019	30 September 2020	30 November 2020	RIIO-T2

3.11. The timetable for updates to allowances for EDE and APFE is predicated on licensees pension schemes meeting the Pension Regulators requirement for valuations to be completed within fifteen months of the valuation date and completion of the reasonableness review by the dates set out in table x above. Where this is not achieved revised allowances will be applied in the following formula year.

3.12. Column A of table [3.1] sets out the date of the valuation to be used for each revision of EDE and ADFE allowances. Not all licensees have a formal triennial valuation as at those dates. Where this is the case the last formal valuation prior to this date will be used, rolled forward to the valuation date set out in the column A in table 3.1 for changes in asset values and market conditions.

Reasonableness review

3.13. The Authority will commission an independent review of the reasonableness with which any established deficit position has been managed ('pension reasonableness review'). That review will assess the current position and reasonableness of the methods and assumptions used to determine pension costs of all network operator (NWO) pension schemes and to understand the differences between individual NWOs' pension costs; and the pension principles. It will be based on their full triennial actuarial valuations at 31 March 2013, 31 March 2016 or 31 March 2019. Where the full triennial valuation is not concurrent with the review timetable, the latest full valuation (that has been the subject of a prior reasonableness review) will be used, updated for movements in asset values and market conditions to 31 March in 2013, 2016 or 2019.

3.14. Prior to making any revisions to EDE values, the valuations used to inform any revisions will be subject to a reasonableness review in accordance with the timetable set out in table [3.1]. The review will commence as soon as practicable and when sufficient pension schemes have concluded their formal valuation, but not later than 15 months after the above dates.

Deficit allocation methodology

3.15. As set out above only the portion of a scheme's deficit that is attributable to the regulatory business will be included in setting allowances. At Final Proposals the published regulatory fraction was used as the basis for determining this value. However, as the 15-year notional deficit funding period commenced on 1 April 2012 for transmission the deficit allocation methodology, attached as appendix 2, will be the basis for determining the regulatory portion for the established deficit, ie with the 31 March 2013 valuations, ie for one year from 1 April 2012 to 31 March 2013.

Discount rate

3.16. In calculating the annual amounts to be provided as allowances for deficit funding, the deficit amount is spread evenly over the 15-year notional deficit recovery period (or the remaining portion of that period commencing 1 April 2012) using a discount rate.

3.17. The rate of return is equal to the median pre-retirement real discount rates applied by network company pension schemes at the respective valuation date. The median discount rate will be compared to applicable UK pension data for reasonableness. The discount rate will be recalibrated as at the date of the initial actuarial valuation, that is as at 31 March 2013, and then subsequent valuation dates, ie 31 March 2016 and 31 March 2019.

3.18. The first review funding discount rate will be based on the formal valuations as at 31 March 2013. The second review funding discount rate will be based on the formal valuations as at 31 March 2016.

Determining the PCFM Variable Values for the GT1 Price Control financial Model

Revisions to pension scheme established deficit allowed expenditure ('EDE')

3.19. EDE values will be revised at the commencement of Formula Years 2015-16 (the first review) and 2018-19 (the second review) of the RIIO-T1 price control period. A third review will also take place during RIIO-T1 but its outcome will be reflected in revenues in RIIO-T2.

3.20. The following adjustments to EDE values are dependent on whether the relevant pension valuation is reporting an established deficit which the licensee is required to fund. If either the valuation or the application of the pension deficit allocation methodology reports a surplus for the scheme or established deficit then, in accordance with our pension principles, we will review the future EDE values and true-up adjustments at each review point.

The first review

3.21. At the first review, the EDE value relating to 2013-14 and 2014-15 will be restated. The restatement will be subject to the outcome of the reasonableness review on the valuation as at 31 March 2013, the application of the regulatory proportion applying the deficit allocation methodology as set out at Final Proposals and the first review funding discount rate. This will be used to determine the revised deficit funding amount which recovers the established deficit over the 15-year notional recovery period in equal annual amounts from 1 April 2012. The values for 2013-14 and 2014-15 will be the revised EDE values for the RIIO-T1-Variable Values Table (VVT) in 2013-14 and 2014-15 for the RIIO-T1 Financial Model. The values for 2015-16 and subsequent formula years through to 2020-21 will equal the revised deficit funding amounts. The adjustments for 2012-13 will be dealt with in accordance with chapter 11.

3.22. At the time of the first review the actual deficit funding amounts for 2013-14 will be known and reported as part of the annual Regulatory Reporting cycle in accordance with standard licence condition [•] Price Control Review Information. Subject to the outcome of the reasonableness review, this amount will be compared to the revised EDE values as calculated in paragraph 3.21 above. The difference whether positive or negative will be a true-up amount and be spread over the remaining years of the 15-year notional recovery period (which commenced on 1 April 2012) in equal annual instalments using the first review funding discount rate.

3.23. The revised EDE values for entry into the VVT for years 2015-16 will be the sum of the revised deficit funding amounts as calculated in paragraph 3.21 and the true-up amounts calculated in paragraph 3.22.

The second review

3.24. At the second review the revised EDE value relating to formula years 2018-19, 2019-20 and 2020-21 will be restated plus any true-up amounts relating to 2014-15 through to 2016-17.

3.25. The restatement will be subject to the outcome of the reasonableness review on the valuation as at 31 March 2016, the application of the deficit allocation methodology (for the first time) and the second review funding discount rate. This will be used to determine the revised deficit funding amount, which recovers the deficit over the remaining period of the 15-year notional recovery period in equal annual amounts. The values for 2018-19, 2019-20 and 2020-21 will equal the revised deficit funding amounts for those years.

3.26. At the time of the second review the actual deficit funding amounts paid by the licensee for 2014-15, 2015-16 and 2016-17 will be known and reported as part of the annual Regulatory Reporting cycle in accordance with standard licence condition [•] Price Control Review Information. Subject to the outcome of the reasonableness review, this amount will be compared to the deficit funding allowances provided for those years (excluding any true-up amounts). The difference whether positive or negative will be a true-up amount and be spread over the remaining years of the 15-year notional recovery period in equal instalments using the second review funding discount rate.

3.27. The revised EDE values for entry into the VVT for years 2018-19, 2019-20 and 2020-21 will be the sum of the revised deficit funding amounts as calculated in paragraph [1.25] and the true-up amounts calculated in paragraph [3.26].

3.28. The Authority will direct revised EDE values no later than 30 November in each formula year t-1 (that is 30 November 2014 and 30 November 2017, respectively). The Authority will direct revised EDE values for Formula Year 2021-22 of RIIO-GD2 no later than 30 November 2020.

Revisions to values pension scheme administration expenses and Pension Protection Fund levy allowed expenditure (‘APFE’)

3.29. APFE values will be revised at the commencement of Formula Years 2015-16 (the first review), 2018-19 (the second review) and 2020-21 (the third review) of the RIIO-T1 price control period.

3.30. Licensee actual costs in respect of scheme administration costs and PPF levies will be reported in compliance with the annual Regulatory Reporting cycle in accordance with standard special licence condition [•] Price Control Review Information.

First review

3.31. At the first review for 2015-16 actual costs will be compared against the allowances set at the outset of the price control in Final Proposals. If actual reported costs in 2013-14 and 2014-15 are equal to or less than the threshold set out in paragraph [3.4] then there will be no true-up adjustment. If actual reported costs exceed the de minimis threshold, then they will be subject to review as to whether they are economic and efficient in accordance with our pension principles. This may include a review for reasonableness against other licensee costs and the Pension Regulator and industry information. If assessed reasonable, revised APFE values will be set based on the latest actual cost information plus any true up amounts.

3.32. True-up amounts, subject to the threshold, will be obtained by comparing the actual payments reported as part of the annual Regulatory Reporting cycle in accordance with standard special licence condition B15 Price Control Review Information for 2013-14 and 2014-15 to the allowance set at Final Proposals for those years and computing the difference. The difference (subject to the outcome of the reasonableness review), in excess of the threshold, will spread over the following three Formula Years commencing 1 April 2015 of the price control in equal instalments and be made net present value neutral using the vanilla WACC for each year.

3.33. The annual allowance for the remaining years of the price control will be reset based on average actual costs for 2013-14 and 2014-15, subject to the outcome of the reasonableness review.

Second review

3.34. At the second review for 2018-19 actual costs will be compared against the allowances set at the outset of the price control in Final Proposals. If actual reported costs in 2015-16, 2016-17 and 2017-18 are equal to or less than the threshold in set out in paragraph [3.4] then there will be no true-up adjustment. If actual reported costs exceed the de minimis threshold, then they will be subject to review as to whether they are economic and efficient in accordance with our pension principles. This may include a review for reasonableness against other licensee costs and the Pension Regulator and industry information. If assessed reasonable, revised APFE values will be set based on the latest actual cost information plus any true up amounts.

3.35. True-up amounts, subject to the threshold, will be obtained by comparing the actual payments reported as part of the annual Regulatory Reporting cycle in accordance with standard special licence condition [•] Price Control Review Information for 2015-16, 2016-17 and 2017-18 to the reset allowances set at the First Review for those years and computing the difference. The difference (subject to the outcome of the reasonableness review), in excess of the threshold, will spread over the following three Formula Years commencing 1 April 2018 of the price control in equal instalments and be made net present value neutral using the vanilla WACC for each year.

3.36. The annual allowance for the first three years of the next price control will be reset based on average actual costs for 2015-18, subject to the outcome of the reasonableness review.

Notification of the PCFM Variable Value

3.37. The Authority will direct revised APFE values no later than 30 November in each formula year t-1 (that is, 30 November 2014 and 30 November 2017, respectively).

4. Tax liability allowance adjustments driven by tax trigger events - financial adjustment methodology

Part 1 - Overview

4.1. The opening base revenue allowances (‘PU’ values) for the licensee set down in the table in Special Condition [•] include tax liability allowances which are modelled at the outset of the price control period to take account of:

(c) existing and announced corporation tax rates and writing down allowance rates;

(d) existing legislation, case law, accounting standards and HM Revenue & Customs (HMRC) policy; and

(e) modelled levels of gearing and corporate debt interest payments.

4.2. Part B of Special Condition GTC 27 provides for adjustments to be made to the licensee’s tax liability allowances[8] during the price control period through the Annual Iteration Process for the GT1 Price Control Financial Model. 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 in respect of 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 GTC 27 and this chapter, “formula year t” means the formula year in which a value for the term TOMOD, calculated through a particular Annual Iteration Process, is used in the formula for the licensee’s base revenue.

Annual Iteration process

4.4. The updating of the licensee’s tax liability allowances and regulatory tax losses balance is carried out through the Annual Iteration Process for the GT1 Price Control Financial Model. The Variable Values Table for the licensee contained in the GT1 PCFM contains rows for PCFM Variable Values for tax liability allowance adjustments driven by:

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

- tax trigger events ('TTE' values); and
- the licensee's gearing levels and corporate debt interest costs ('TGIE values').

4.5. TTE and TGIE values represent £m amounts. As at 1 April 2013, the TTE and TGIE values for the licensee, for each formula year will be zero. Part B of Special Condition GTC 27 (Specified financial adjustments) provides for any revisions to TTE and TGIE values to be directed after determination under the methodologies in this chapter.

4.6. Revisions to TTE and TGIE values feed into the recalculated base revenue figures and/or the regulatory tax loss balances for applicable formula years in the GT1 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 term TOMOD 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 TOMOD.

4.7. It should be noted that underlying tax liability allowances for the licensee within the GT1 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.

Price bases for tax calculations

4.8. The GT1 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 on the basis of actual RPI data before being used to determine revised TTE and TGIE values.

4.9. The GT1 PCFM uses nominal prices for some internal tax calculation functions. For this purpose, the model refers to RPI forecast values set at the outset of the price control period and hard coded into the model.

Regulatory tax losses

4.10. 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 what would have been the negative allowance as a 'regulatory tax loss' figure, to be deducted from any tax liability allowances which would otherwise be allocated to the year concerned or to later years. The regulatory tax loss balance attributable to each formula year (together with a running total) is held within the GT1 PCFM and regulatory tax losses are referred to where applicable in the methodologies in this chapter.

Group tax arrangements

4.11. 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 and receipts which are not tax deductible or chargeable under HMRC rules for the purposes of computing the licensee's taxable profits, including adjustments for transfer pricing and debt cap adjustments.

4.12. 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.

Part 2 - Adjustments driven by tax trigger events - methodology

4.13. The methodology set out in this Part provides for the licensee's tax liability allowances to be updated (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 and its shareholders will be appropriately reimbursed when they rise.

Tax trigger events

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

<u>Type A</u>

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, including any deferral of the Accounting Standard Board's (ASB) implementation date for Financial Reporting Exposure Draft 48 (FRED48)[9].

4.15. Where a Type B event changes the allocation of allowable expenditure into different or introduces new capital allowance pools, the model will only be updated for the scale of the change driven by the policy and the applicable allowance rates will be adjusted to the new expected allocation basis. There is no adjustment of allocations to licensee's actual allocations for formula years up to the date of the change.

4.16. Type B events will only be taken into account where the licensee has demonstrably used all reasonable endeavours to minimise any increase in its tax liabilities.

Materiality threshold and 'deadband'

4.17. 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 GT1 PCFM.

4.18. The materiality threshold for each formula year is fixed for the period of the price control. The threshold is determined as the greater of:

- 0,33 per cent of opening base revenue allowances ('PU' values) for the licensee set down in Special Condition [•]; and
- the effect of a one per cent change in the rate of corporation tax,

on the opening values of the PU term for each formula year.

4.19. A change to 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 liabilities for that year (upward or downward) by an amount which is greater than

[9] FRED48 The Financial Reporting Standard applicable to UK and Republic of Ireland published by ASB January 2012, which is expected to become FRS102

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.

4.20. Where the change to the licensee's tax liabilities 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 value) would be determined once the threshold has been exceeded.

4.21. 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

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

- specific legislative requirements;
- case law;
- HMRC interpretation of legislation; and
- requirements of the accounting framework applicable to preparation of the licensee's statutory accounts[10]

4.23. 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, as it should be known as on the implementation of FRED48).

Notification of tax trigger events

Type A trigger events

4.24. 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 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

[10] Section 385 of the Companies Act 2006 refers.

licensee to contact Ofgem in advance of this date to discuss the current view of Type A events.

4.25. 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.

4.26. If, after receiving the notification referred to in paragraph 5.20, 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.

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

Type B trigger events

4.28. The licensee must notify Ofgem by 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 reported. This requirement applies equally to events which could be expected to increase or to reduce the licensee’s tax liability allowances.

4.29. If the licensee fails to notify Ofgem of any increase in the licensee’s tax liability it will not be made retrospective nor made PV neutral. If the failure relates to a reduction in the licensee’s tax liability, then subject to the licensee demonstrating that is has taken all reasonable steps to identify all Type B trigger events this may not be held a breach of the licence conditions.

4.30. The notification referred to in paragraph 4.28 should include, in respect of each Type B trigger event:

(a) a description of the event;

(b) the change in tax liabilities 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);

(d) any relevant information provided by HMRC in relation to the event; and

(e) evidence of mitigating measures which the licensee has taken to minimise any additional liabilities arising from the event.

4.31. The licensee’s notification should also state whether the licensee considers that the materiality threshold (see paragraph 4.17) 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.

4.32. Ofgem will review any notifications given to it by the licensee under paragraph 4.28 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 limited scope audit procedures, specified by Ofgem and carried out by the licensee's appropriate auditors[11], to assist in confirming the appropriateness and accuracy of the licensee's calculations.

4.33. 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
- it has decided that consideration of any change in tax liabilities should be deferred until further/better information is available.

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

4.35. 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.

4.36. 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.

Logging of trigger events

4.37. 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);

[11] As defined in Standard Special Condition A3 of the Gas Transporter Licence

- 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 values

Determination of revised TTE values using the tax trigger calculation tool

4.38. The design of the GT1 PCFM includes additional functionality meaning that a copy of the GT1 PCFM (held on Ofgem's website) can be used as a tax trigger calculation tool, as an adjunct to the Annual Iteration Process.

4.39. During each formula year t-1, Ofgem will generate a *duplicate copy* of the GT1 PCFM, in its state following the last completed Annual Iteration Process (but including any subsequent functional modifications under Special Condition GTC 57) for use as the tax trigger calculation tool. It will then take the following steps to determine TTE values for each licensee:

(i) the 'Tax allowance before tax trigger' amount for the licensee for each formula year shown on the tax trigger worksheet will be noted;

(ii) the PCFM copy will be put into 'tax trigger tool mode' using the selector on the User Interface worksheet;

(iii) 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;

(iv) all of the existing TTE values will be re-set to zero;

(v) any existing values in the yellow input cells on the tax trigger worksheet will be cleared;

(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 liabilities 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 'Type B event values' row in the appropriate formula year columns on the tax trigger worksheet;

(ix) the tax trigger macro calculation will be re-run;

(x) the new 'Tax allowance' amount for the licensee shown on the tax trigger worksheet will be noted – this is displayed net of the deadband amount which is also calculated under the macro calculation;

(xi) the difference between the 'Tax allowance before tax trigger' referred to at point (i) and the new 'Tax allowance' referred to at point (x) will be calculated as a £m amount, for the licensee for each formula year.

4.40. The amounts calculated under step (xi) will then be determined to be the TTE values for the licensee for each formula year. Where these values differ from the TTE values shown on the Variable Values Table for the licensee in the GT1 PCFM (following the last completed Annual Iteration Process), Ofgem will direct that the TTE values concerned are to be changed in accordance with the process set out in Part B of Special Condition GTC 27 and referred to below.

Notes on the tax trigger calculation

- The two stage calculation process referred to in steps (vii) and (ix) allows the tax trigger calculation tool to take full account of the interrelationship between Type A and Type B events.
- The nullification of existing TTE values referred to in step (iv) together with the inclusion of all determined changes to the licensee's tax liabilities referred to in step (viii) ensures that the determination of TTE values under step (xi) 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 (iii) ensures that the tax allowance calculation is as up to date as possible for each formula year.

Direction of revised TTE values

4.41. The Authority will direct any revisions to TTE 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.

4.42. Revised TTE 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.

4.43. The procedure for the Authority's direction of revised TTE values is set out in Part D of Special Condition GTC 27.

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

[to be inserted]

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

[to be inserted]

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)[12] for the transportation business. The 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 ('TO CDE' values) is established in Special Condition GTC 27 (Specified financial adjustments – Transmission Owner). GTC 27 requires revised TO CDE values to be determined in accordance with the methodology in this chapter.

System Operator price control

5.5. Paragraph [•] of Special Condition GTC 65 (Specified financial adjustments – 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 TO CDE Value for the same year.

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[12] see Glossary

Temporal conventions

5.6. For the purposes of Special Condition GTC 27, GTC 65 and this chapter:

- "formula year t" means the formula year in which a value for the term TOMOD, or as applicable SOMOD, calculated through a particular Annual Iteration Process, is used in the formula for the licensee's Base NTS TO Revenue[13]/ internal operating cost revenue.

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

5.7. At the outset of the RIIO-T1 price control period (1 April 2013), the TO 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 TO 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 TO 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. However, only the revised TO CDE[14] value for formula year t will impact on the value of TOMOD for the same formula year t[15].

5.10. The following steps are to be followed:

[13] See Special Condition [•] (transportation owner activity revenue restriction).

[14] SO CDE value with respect to the value of SOMOD

[15] Subject to revision of an earlier value – see paragraph 6.11

Step 1

Establish the 'trading days period[16]' 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
30 November 2015	1 November 2005 to 31 October 2015
Et seq…….	Et seq…….

Step 2

For each day in the trading day 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 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:

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

[16] Trading days as published in the Markit iBoxx® database

Step 3For each day in the trading day period ascertained under Step 1, obtain the Bank of England's 'breakeven inflation' figure for 10-year government-issued bonds by applying the following formula:

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

where:

π is the Bank of England's breakeven inflation figure.

i is the Yield From British Government Securities, 10 Year Nominal Zero Coupon – series reference IUDMIZC; and

r is the Yield From British Government Securities, 10 Year Real Zero Coupon – series reference IUDMIZC.

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:

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

where:

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

$iBoxx$ is the average of the annual yield figures obtained under Step 2; and

π is the Bank of England's 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 average value of CoD across the trading day period ascertained under Step 1.

This average, expressed as a percentage, constitutes the revised PCFM Variable Value for the cost of corporate debt which will be inputted into the PCFM in the following format: X.XX%.

Non-availability of iBoxx or Bank of England data

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

5.12. If, for any reason, the iBoxx or Bank of England series identified above cease to be published, 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

5.13. The Authority will direct revised TO CDE and SO CDE values by no later than 30 November in each formula year t-1 in accordance with Part D of Special Condition GTC 27. Notice of proposed revised values will be given to the licensee at least 14 days before the date of the direction.

5.14. 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 chapter 2.

5.15. The data and spreadsheet used to calculate revised TO CDE and SO CDE values will be published on the Ofgem website.

6. Totex Incentive Mechanism – financial adjustment methodology

Description of the Totex Efficiency Incentive

Total expenditure ("Totex")

6.1. Paragraph

6.2. Paragraph

Total Allowed Totex

6.3. x

Determining PCFM Variable Value revisions for the Annual Iteration of the GD1 Price Control financial Model

Notification of revised PCFM Variable Values

7. Uncertain Costs - allowed expenditure financial adjustment methodology

Main Heading

Sub-Heading

7.1. Paragraph

Main Heading

Sub-Heading

8. Incremental entry and exit capacity drivers - financial adjustment methodology

Main Heading

Sub-Heading

8.1. Paragraph

8.2. XX

9. Network flexibility - financial adjustment methodology

Main Heading

Sub-Heading

9.1.

9.2. Paragraph

10. Innovation Roll Out mechanism - financial adjustment methodology

Main Heading

Sub-Heading

10.1.

10.2. Paragraph

11. Legacy price control financial adjustment methodologies

Overview

11.1. The purpose of this chapter of the price control financial handbook is to set out the methodologies to determine the values for each component part of the financial adjustments in respect of the previous price control.

11.2. The adjustments from the component parts of the previous price control adjustments will be aggregated to calculate aggregate Legacy price control adjustments to the licensee's Allowed Revenue (LAR values) and RAV balance (LRAV values) for input to the PCFM.

11.3. 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 revenue of the licensee so that it is the same as it would have been had the forecast values used in the model been the same as the actual out-turn values.

Main Heading

Sub-Heading

11.1. Paragraph

Main Heading

Sub-Heading

Appendices

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Appendix 1 - Glossary

F

Fast money

The proportion of Totex which is not credited to the licensee's RAV balance and is effectively included in the licensee's revenue allowance for the year of expenditure

G

GT1

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

GT1 Price Control Financial Model

The model referred to in Special Condition PCC 3 of the Electricity Transmission Licence. Derived from the Combined Model it has been developed to calculate appropriate changes to each licensee's base revenue through an annual iteration process - see chapter 2.

TPCR (Electricity Transmission)

The RPI-X type price control arrangements which applied to electricity transmission licensees from 1 April 1 April 2008 to 31 March 2013

M

MOD Term [TO and SO]

The term of that name included in the formula for Base Revenue set out in Special Condition X of the Electricity Transmission licence. It represents the incremental change to [base revenue] for the formula year concerned, ascertained in accordance with the methodologies set out in this Handbook. The value of the MOD term is calculated through the annual iteration of 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.

O

Ofgem

The Office of the Gas and Electricity Markets Authority.

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

RIIO

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

RIIO-T1 (Electricity Transmission)

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

S

Slow money

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

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.

SO

[•]

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.

In basic terms, the multiplier is X^Y where:

- X is the Vanilla WACC for the licensee applicable to the period of deferral; and
- Y is the number of years of deferral

TO

[•]

Totex

Total expenditure – a GDN's capital (capex), replacement (repex) and operational (opex) expenditure on its transportation business except for:

- costs relating to de minimis (non transportation business) activities;
- costs relating to excluded services;
- pension deficit repair payments relating to the established deficit and unfunded ERDC costs incurred after 1 April 2004;
- fines and penalties;
- compensation payments made in relation to standards of performance;
- bad debt costs;
- costs related to the SF6 incentive scheme;
- costs relating to pass-through items;
- finance and tax costs (except for some business rates and stamp duty land tax)
- other expenditure and accounting adjustments specifically excluded from Totex by the RIIO-GD1 Cost Reporting Regulatory Instructions and Guidance.

A set percentage of Totex is added to the RAV, and the price control approach is to remunerate this amount as 'slow money' with the remaining percentage remunerated as 'fast money' in the year it is expected to be incurred.

Totex capitalisation rate

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

U

Unified Financial Model

The model used by Ofgem to ascertain opening base revenue values for all the network price controls and to allow financeability analysis of overall price control packages (compare to GT1 price Control Financial Model)

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 isn't taken into account in the determination of the Real Vanilla WACC percentage since revenue allowances (which include the Vanilla WACC return) are separately RPI indexed.