Guidance

Carbon Dioxide Transport and Storage Price Control Financial Handbook

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This is the Carbon Dioxide Transport and Storage (CO2 T&S) Price Control Financial Handbook, which consists of:

a) requirements for how Licensees must use the CO2 T&S Price Control Financial Model (PCFM) to determine the Allowed Revenue;
b) an overview of the PCFM Variable Values used in the CO2 T&S PCFM; and
c) details of how certain Variable Values are revised or calculated.

The procedures relating to modification of this handbook and the CO2 T&S PCFM are contained in Part D (Modifications of the Price Control Financial Handbook) of Special Condition J13 (Price Control Financial Model).

Ofgem is the Office of Gas and Electricity Markets. We are the independent energy regulator for England, Scotland and Wales (Great Britain), and we are governed by the Gas and Electricity Markets Authority ('the Authority'). The terms "Ofgem", "the Authority", "we", "us" and "our" may be used interchangeably in this document.

Contents

1. Introduction

1.1 The carbon dioxide transport and storage licence (the 'Licence') outlines the methodology for calculating the value of the shadow regulatory asset value (SRAV) and annual Allowed Revenue, using the CO2 T&S PCFM.

1.2 This handbook sets out how Licensees must use the CO2 T&S PCFM to determine Allowed Revenue. It applies to Licensees who have been granted their Licence by the Secretary of State under Track-1 of the UK Government's CCUS Programme and is only applicable to those Track-1 Projects, as confirmed in the October 2021 update. Any projects outside the scope of Track-1 may be subject to different licence conditions and guidance.

1.3 This handbook provides:

a) a description of the CO2 T&S PCFM;

b) the process the Licensee must follow in calculating Allowed Revenue;

c) an overview of the PCFM Variable Values used in the CO2 T&S PCFM; and

d) details of how certain PCFM Variable Values are revised or calculated.

Related documents

1.4 This handbook is one of several documents relevant to the calculation of SRAV and Allowed Revenue. Other documents include:

a) The Licence;

b) Project Specific Documents such as Carbon Dioxide Transport and Storage Price Control Financial Model;

c) The Price Control Financial Guidance;

d) Associated documents related to obligations under the Regulatory Instructions and Guidance (the RIGs), in accordance with Standard Condition B19; and

e) Any documents we publish in relation to the Post Construction and Post Commissioning Reviews and subsequent price controls.

1.5 In any case of a conflict of meaning between these documents, the following order of precedence applies:

a) The Licence;

b) The CO2 T&S PCFH;

c) The CO2 T&S PCFM; and

d) Other documents including the Price Control Financial Guidance.

Document structure

1.6 The remainder of this handbook is structured as follows:

a) Section 2 provides an overview of the CO2 T&S PCFM;

b) Section 3 lists the PCFM Variable Values used in the CO2 T&S PCFM; and

c) Subsequent sections provide details of how certain PCFM Variable Values are revised or calculated (along with further details on the CO2 T&S PCFM).

Definitions

1.7 This handbook uses defined terms, which are capitalised throughout this handbook, with the meaning found in the following locations:

a) The definitions given below; and

b) The Licence.

Dry Run(s)

means the process for Licensees to operate the CO2 T&S PCFM on a draft basis, to facilitate working-level engagement between the Licensees and Ofgem ahead of the requirements for the Annual Iteration Process specified in the Licence.

OBR

Means the Office for Budget Responsibility.

CO2 T&S PCFM

means the Carbon Dioxide Transport and Storage Price Control Financial Model and refers to the same document defined as the “Price Control Financial Model” in the Licence.

RAV

means Regulated Asset Value.

PCFH

means Price Control Financial Handbook.

Time Value of Money adjustment

means an adjustment within the K Factor True Up to reflect the financial impact of the timing of cash flows and applied to historic under or over recovery of Allowed Revenue within the CO_2 T&S PCFM.

2. The CO2 T&S PCFM and Calculation of Allowed Revenue

The Price Control Financial Model

2.1 The First Regulatory Period consists of three distinct periods which set out the methodology for calculating the Allowed Revenue:

a) Construction Period;

b) Commissioning Period; and

c) Operational Period.

2.2 The Construction Period Licence Special Conditions apply until the commencement of the Commissioning Period. The value of the Day1 SRAV is determined at the Licence Award in Base Year prices. In this period, expenditure (that is not Excluded Project Spend), Return During Construction alongside other relevant building blocks will accrue onto the SRAV in accordance with Special Condition F4 (SRAV During the Construction Period) of the Licence.

2.3 A Commissioning Period follows the completion of the Construction Period. During this period, Ofgem will conduct the Post Construction Review as set out in the Licence. Expenditure incurred during the Commissioning Period (that is not Excluded Project Spend) and Return During Commissioning (alongside other relevant building blocks specified in the licence) will accrue onto the SRAV until the end of the period. The Commissioning Period Licence Special Conditions will remain in place until the day prior to Commercial Operations Date (COD). At COD, Ofgem will issue a determination of System Acceptance.

2.4 An Operational Period follows the completion of the Commissioning Period. During this period, Ofgem will conduct the Post Commissioning Review as set out in the Licence. The Licensee will follow the methodology for operating the CO2 T&S PCFM during the Operational Period in accordance with Special Condition H9 (Calculation of Allowed Revenue during the Operational Period).

2.5 During the Construction Period and Commissioning Period, expenditure is accrued to the SRAV in the CO2 T&S PCFM for each SRAV Calculation Period. In accordance with Special Condition F4 (SRAV During the Construction Period) and Special Condition G7 (SRAV During the Commissioning Period), alongside any incentives, the following items or types of expenditure that are expected to be accrued on to the SRAV include:

a) Day1 SRAV

b) Re-use Assets Valuation (if any);

c) SRAV Capex and Opex (including any relevant incentives);

d) Pass Through Costs;

e) Ongoing Devex;

f) Debt Fees;

g) Disposals; and

h) Return During Construction and Return During Commissioning.

2.6 As part of the Annual Iteration Process, during each SRAV Calculation Period, the Licensee must update any values initially provided on a provisional or estimated basis. These updates should be based on the most precise forecast available at that moment. This process continues until provisional estimates are replaced by actual values (in accordance with Special Condition E2 2.2(e)).

2.7 For each Charging Year in the Operational Period, the Licence and CO2 T&S PCFM provides for the calculation of Allowed Revenue.

2.8 The CO2 T&S PCFM incorporates data provided by both the Licensee and Ofgem, which are used to determine the Allowed Revenue for each Charging Year. The Allowed Revenue for the Licensee during each Charging Year of the Price Control Period is calculated based on these PCFM Variable Values, along with non-variable values, the formulae and the functions embedded in the CO2 T&S PCFM.

2.9 Items that do not meet the definition of "PCFM Variable Values" as specified in the Licence are either fixed for the duration of the Construction Period and Commissioning Period at Licence Award or are subject to periodic revision and are subject to the processes detailed in the Licence in Special Condition J13 (Price Control Financial Model).

2.10 As outlined in paragraph 8.4 of Special Condition H8, the Allowed Revenue is calculated by the CO2 T&S PCFM by updating PCFM Variable Values in accordance with the Licence.

2.11 The Licensee must provide its calculation of the annual Allowed Revenue in accordance with the relevant dates detailed in the Licence and the PCFH, and where relevant, in accordance with the dates specified in documents associated with the RIGs.

2.12 The detailed timeline we specify to Licensees for working-level submissions will be scheduled ahead of deadlines specified in the Licence to facilitate a process to reduce the probability of errors via a process of structured 'Dry Runs'. These are specified in detail in paragraph 2.522.52 to 2.642.64.

2.13 The section on 'Dry Run(s)' is drafted with a view to establishing an enduring process for the duration of the economic regulatory regime. We expect to engage with Licensees collaboratively to implement a pragmatic and workable process for the initial period immediately following Licence Award.

Price base

2.14 The CO2 T&S PCFM works in a constant price base (currently 2021/22 prices), except in respect of some calculations internal to the model that use nominal prices, e.g. some finance and tax calculations. The use of nominal prices in the CO2 T&S PCFM tax calculations more accurately reflects the Licensee's tax expenses profile in calculation of the Allowed Revenue. Where applicable, the row labels in the CO2 T&S PCFM will specify the price base of the values in that row.

2.15 The Price Indexation Term is used to convert from Base Year prices to nominal prices. The calculation is set out in Special Condition H9.6 (Part D: Calculation of Price Indexation Term) and this is labelled in the CO2 T&S PCFM as 'Price conversion factor'.

Indexation

2.16 The CO2 T&S PCFM "ModelInput" tab contains historical and forecast values of the price index.

2.17 There are three PCFM Variable Values relevant for the treatment of indexation in the CO2 T&S PCFM:

a) Outturn CPIH inflation data, which relates to the outturn index data published by the Office for National Statistics (ONS CPIH outturn data series ID L522), will be input into the row labelled "CPIH + forecast". This will be updated once a year as part of the Annual Iteration Process. The data required will be the year average CPIH for the relevant Charging Year.

At the time the Licensee is submitting the CO2 T&S PCFM, if there is insufficient outturn index data to calculate an arithmetic year average for the current year, the Licensee must use the most recent published outturn CPIH value. For all other outturn years, the Licensee will calculate an arithmetic year average CPIH.

For any year where the ONS reports an outturn CPIH value, the CO2 T&S PCFM will apply the following formula to report an annual inflation percentage, using the outturn data reported by the ONS:

$$CPIH_{historic} = \frac{CPIH_t}{CPIH_{t-1}} - 1$$

Where $CPIH_{historic}$ means historic CPIH.

b) Short-run forecast CPIH inflation data relates to the CPIH inflation forecast for the years following the latest outturn CPIH value. The licensee is required to use OBR CPI forecasts, subject to review from time-to-time to reflect the changing availability of credible CPIH forecasts. The Licensee will populate the CO2 T&S PCFM (row labelled "OBR Forecast") with the forecast index data reported by the Office for Budget Responsibility (OBR) for the five years following the latest outturn CPIH value. The OBR forecast data can be obtained by:

   i. accessing the 'Economic and fiscal outlook' publication which can be found on the bottom left of the page under the 'Publications' category;

   ii. selecting the file titled '[Most recent published report] Economic and fiscal outlook – detailed forecast tables: economy' (e.g. March 2024 Economic and fiscal outlook – detailed forecast tables: economy); and,

   iii. Using the data on table 1.7: Inflation for CPI.

c) The long-term inflation assumption (labelled 'Long-term inflation forecast' in the CO2 T&S PCFM) which, during the Construction Period and Commissioning Period should align to the inflation assumption used by DESNZ at Licence Award to deflate the Licensee's weighted average cost of capital into real prices. In the Operational Period, the Licensee is required to align to the long-term OBR inflation forecast.

2.18 The CO2 T&S PCFM will use forecast CPIH data inputs to project an annual inflation forecast relative to outturn inflation data reported by the ONS. The forecast will be calculated in accordance with the following formula:

$$CPIH_{t,+forecast} = CPIH_{t-1} \times (1 + OBR_t)$$

Where $CPIH_{t,+forecast}$ means the outturn CPIH values reported by ONS adjusted by the forecast CPIH reported by the OBR.

Temporal convention

2.19 The following conventions apply throughout this handbook:

a) Relative references; and

b) Absolute references.

2.20 Relative references: The AR_t term is the Licensee's Allowed Revenue for each Charging Year t during the Regulatory Period. References in this handbook to Charging Years are made relative to that usage. For example, in the context of AR_t for Charging Year 2024/25, a reference in the same context to Charging Year t-1 would mean 2023/24 and so on.

2.21 Absolute references: A reference to, for example, 'SRAVDay1 value for 2022/23' means the SRAVDay1 value in the 2022/23 column of the CO2 T&S PCFM.

PCFM Variable Values

2.22 Ofgem will rely on input data provided by the Licensee to calculate the Allowed Revenue. The PCFM Variable Values provided by the Licensee should reflect actuals but, where actual data is not available at the time of submission, the Licensee should provide a provisional value either:

a) If applicable, in accordance with the approach specified in the Licence;

b) PCFH;

c) Documents associated with the RIGs;

d) The Price Control Financial Guidance; and

e) If the above documents do not apply, the Licensee's best estimate on the basis of the information available at the time, alongside supporting commentary that describes the basis of the Licensee's estimate.

2.23 Unless otherwise stated in documents associated with the RIGs (or elsewhere), the Licensee's submissions to discharge reporting obligations under the RIGs will provide the primary source of evidence for the Licensee's provision of data to support the revision of PCFM Variable Values. We expect these submissions to be consistent with its submission of PCFM Variable Values and that the Licensee will be able to justify its approach if queried.

2.24 Guidance documents associated with obligations under the RIGs provides Licensees with instructions on the appropriate accounting treatments to apply when reporting financial information to Ofgem. As a general principle, financial information should be reported on an accruals basis. However, if the RIGs specifies, this information should be reported on a cash basis or another designated method.

2.25 For future periods the equivalent data should be forecast and/or estimated figures, and if queried, the Licensee should be able to articulate the basis on which the figures have been generated.

Time value of money

2.26 The CO2 T&S PCFM uses time value of money adjustments to incorporate the financial impact of the timing of cash flows, e.g. from switching revenues between Charging Years as a result of changes to previous Charging Years' Allowed Revenue or to correct a charging error for any over or under-recovery.

2.27 The time value of money rate used in the CO2 T&S PCFM is based on the Licensee's nominal WACC, which is calculated on row 45 of the AR Worksheet and is derived in accordance with the formula in paragraph 9.12 and 9.13 of Special Condition H9 (Calculation of Allowed Revenue during the Operational Period).

K-factor true up

2.28 The CO2 T&S PCFM calculates the K-factor true up, which is part of the Allowed Revenue for Charging Year$_t$ in the Operational Period. It takes into account the difference between forecast, provisional or estimated values with actual out-turn values. The K-factor also takes into account the correction of errors and revisions of data identified as a result of assurance activities.

2.29 The K-factor used in the CO2 T&S PCFM is calculated on row 47 the AR Worksheet CO2 T&S PCFM and is derived in accordance with the formula in paragraph 9.10 of Special Condition H9 (Calculation of Allowed Revenue during the Operational Period).

Changing the Price Control Financial Model

2.30 The CO2 T&S PCFM can be modified in accordance with the Special Condition J13 (Price Control Financial Model) and Standard Condition B27 (Project-Specific Documents).

2.31 If an error of functionality is discovered in the CO2 T&S PCFM, the procedure in Special Condition J13 (Price Control Financial Model) for modifications to the Price Control Financial Instruments will be followed.

Calculation of Allowed Revenue

2.32 The CO2 T&S PCFM will be used for the purpose of determining the value of Allowed Revenue for the duration of the Regulatory Period.

2.33 In determining the value of Allowed Revenue, the Licensee must use the latest version of the CO2 T&S PCFM published on Ofgem's website.

2.34 The Licensee must update the PCFM Variable Values at least annually, in accordance with the Special Condition J13 (Price Control Financial Model).

2.35 The input may include provisional values for variables that are unknown at the time of submission. If a PCFM Variable Value is unknown, the Licensee must calculate a provisional value in accordance with paragraph 2.22 and provide their best estimate. Forecasts, while not as accurate as actual data, are expected to reduce the magnitude of any subsequent adjustments and decrease revenue volatility. All forecast values should be stated in Base Year prices unless otherwise specified.

2.36 The Licensee must not make any other modifications to the CO2 T&S PCFM beyond the removal of those input worksheets which are not relevant to the Licensee.

2.37 The Licensee must, if it is uncertain of the correct way to calculate a CO2 T&S PCFM Variable Value, seek advice from Ofgem.

2.38 Where any PCFM Variable Value relies on a third-party publication that ceases to be published or no longer contains the value or data required for that value, Ofgem will consult on an alternative approach. If the consultation is not completed in time to determine a revised value for the publication of the CO2 T&S PCFM in accordance with Part B (Modification of the Price Control Financial Model) of Special Condition J13 (Price Control Financial Model), Ofgem will agree an interim approach with Licensee. For example, Ofgem and the Licensee could consider using a value from the most recently available publication or a relevant alternative input.

2.39 To ensure a timely CO2 T&S PCFM publication, any such interim approach for a given Charging Year will be revised in the subsequent Charging Year.

2.40 Ofgem may direct a change of the 'publication date' on the 'Cover' worksheet of the CO2 T&S PCFM. The following is file naming convention:

CO2 T&S PCFM YYYYMMDD

where:

YYYYMMDD means the year, month, and day the CO2 T&S PCFM was published.

The CO2 T&S Price Control Financial Model Working Group

2.41 Ofgem will invite stakeholders from Licensees to participate in an industry working group to review issues arising with respect to the form or usage of the CO2 T&S PCFM. The terms of reference for The PCFM Working Group ('The Working Group') are set out below.

Terms of reference

2.42 The purposes of The Working Group are:

a) to review the ongoing effectiveness of the CO2 T&S PCFM in producing a value for Allowed Revenue and capturing financial performance data for each Charging Year;

b) to provide, when requested by Ofgem, its views on the impact of any proposed modifications on the CO2 T&S PCFM; and

c) to provide such views or recommendations to Ofgem with regard to the CO2 T&S PCFM (including as to proposals to modify the CO2 T&S PCFM) as it sees fit.

Composition

2.43 The composition of The Working Group will be:

a) Ofgem (Chair);

b) Ofgem (Secretary); and

c) Two representatives per Licensee.

Timing and duration of The Working Group's work

2.44 The working group will initially run from Licence Award until both 'track 1' CO2 T&S Licensees achieve commercial operations (COD).

2.45 The working group will meet at least once between 1 January and 1 April during each calendar year, but may meet more frequently if required, in relation to the provision of views on the impact of any licence modifications (see paragraph 2.42b).

2.46 In convening any meeting of The Working Group, Ofgem will give at least 10 working days' notice of the proposed meeting date to the Licensee.

2.47 Representatives may attend meetings in person or online.

2.48 A meeting of The Working Group will be quorate, for the purpose of expressing a view or recommendation in respect of the CO2 T&S PCFM, with at least one representative from Ofgem, and at least one representative from each Licensee.

2.49 Ofgem will review the terms of reference for the working group when either:

a) both track 1 CO2 T&S Licensees achieve COD, or

b) there are additional CO2 T&S Licence Awarded.

Resources

2.50 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 CO2 T&S PCFM.

2.51 A copy of the record of each meeting will be provided to the Licensee as soon as is reasonably practicable and to representatives who attended the meeting, and Ofgem will take account of any comments received in finalising the record.

Dry Run(s) process

2.52 The process for confirming and amending PCFM Variable Values will normally take place over a number of months from 31 July to October and will be iterative to account for updates to the PCFM Variable Value as they become known.

2.53 There will be one or more Dry Runs of the CO2 T&S PCFM between the Licensee's initial Dry Run submission on 31 July and the final Dry Run submission in October. The number of Dry Runs needed will depend on the number and timing of Variable Value updates required for the Licensee in any particular Charging Year.

2.54 All the documents submitted as part of a Dry Run of the Annual Iteration Process must be sent to Ofgem in accordance with any previously specified arrangement for sharing data.

2.55 Ofgem will review the submitted CO_2 T&S PCFM and confirm whether this has been prepared in accordance with the PCFH and the Licence. Where values have not been prepared in accordance with the PCFH, Ofgem will notify the Licensee of any required amendments to such PCFM Variable Values, which the Licensee must amend in a subsequent Dry Run. Where Ofgem amends a PCFM Variable Value from an earlier Licensee submission, either due to a Licensee error or to reflect updates to a provisional value, it will notify the Licensee and request a resubmission of the CO_2 T&S PCFM at the next available Dry Run.

2.56 The Dry Runs process will normally follow the below timeline:

a) 31 July: The Licensee must submit the CO_2 T&S PCFM with updated Variable Values and accompanying supporting files to Ofgem (dry-run 1). Ofgem will then review and respond to this Dry Run, either confirming or amending the Variable Values, as appropriate.

b) 30 August: The Licensee must submit a further CO_2 T&S PCFM to Ofgem (dry-run 2) to reflect any further updates since the first Dry Run. Ofgem will then review and respond to this Dry Run, either confirming or amending the Variable Values, as appropriate.

c) 1 October: Ofgem will provide an update to (any relevant) Ofgem-provided Variable Values and the underlying models used to calculate them (Revenue Reporting Pack (RRP) and Regulatory Financial Performance Reporting (RFPR)). Following the provision of the Ofgem-determined Variable Values the Licensee must, by the later of:

   i. 1 October; or

   ii. 7 working days after their receipt,

   submit a further CO_2 T&S PCFM (dry-run 3) to Ofgem, which should include the Ofgem-determined values.

d) 31 October: The Annual Iteration Process will conclude, after which Ofgem will notify the Licensee of the RAV/SRAV value and, where applicable, the Allowed Revenue for the relevant Charging Year.

PCFM Dry Run Commentary

2.57 During the Dry Run process, each submission of the CO2 T&S PCFM must be accompanied by supporting commentary as well as any applicable subsidiary models and underlying workings.

2.58 The purpose of the CO2 T&S PCFM Dry Run commentary is to provide a useful narrative to summarise the updates that have been made to the PCFM Variable Values and the impact that these have had on the Licensee's Allowed Revenue.

Structure of the commentary

2.59 The outline structure of the commentary is as follows:

a) Executive summary,

b) Updates to the PCFM Variable Values,

c) Impact on Allowed Revenue,

d) Statement on forecast data,

e) Data assurance statement,

f) Other relevant information.

2.60 The sections outlined above should contain sufficient detail such that Ofgem would be able to re-perform the updates made since the last submitted version of the CO2 T&S PCFM and arrive at the same value of Allowed Revenue.

2.61 The Licensee must provide detail on the following areas at a minimum:

a) a summary of the updates the Licensee has made to the PCFM Variable Values in the input worksheets since the most recent version of the CO2 T&S PCFM published by the Licensee;

b) the source of the data used to update the PCFM Variable Values (e.g. RRP);

c) a description of the impact of the changes on Allowed Revenue and the key drivers of this impact ranked in order of materiality;

d) for any forecast data, the Licensee should include a statement confirming that it has used its best estimate to ensure forecasts are reasonable given the information available at the time and that any significant changes to forecast values have suitable supporting statements;

e) a data assurance statement briefly setting out the assurance processes that the information in the commentary, the CO2 T&S PCFM inputs worksheet and any underlying input files are subject to; and,

f) any other information the Licensee considers is appropriate to explain the CO2 T&S PCFM submission.

Submission

2.62 The Dry Run commentary should reconcile with and refer to the CO2 T&S PCFM submitted. Any narrative, tables or descriptions of changes in PCFM Variable Values and Allowed Revenue in the commentary should be clearly disaggregated by the Licensee. A full Dry Run commentary is required for the first Dry Run submission, comparing the submitted CO2 T&S PCFM and Allowed Revenue value against the previously published version of the CO2 T&S PCFM, provided by Ofgem for use in the Annual Iteration Process.

2.63 For any subsequent Dry Runs, a detailed narrative will only be required for the PCFM Variable Values, which have been amended from the prior Dry Run.

2.64 Where appropriate, the Licensee may cross-reference to other information that supports its submission. Any cross-referencing should clearly direct Ofgem to the source data used, for example through hyperlinks.

3. PCFM input data

3.1 This chapter provides an overview of the material categories of the model input data that are present in the CO2 T&S PCFM and provides a full list of PCFM Variable Values, including the relevant Special Condition and Associated Documents, where relevant. It includes an overview of each PCFM Variable Value, including a description, cross references, cross-references to the relevant Special Conditions (where appropriate), and details of associated documents (where relevant).

3.2 This chapter also identifies the PCFM Variable Values for which further details are provided in subsequent sections of this handbook. This includes the approaches to PCFM Variable Values calculated by Ofgem and details for some PCFM Variable Values in addition to that provided in Special Conditions.

Overview of PCFM input data

3.3 This section provides a high-level overview of the more significant types of input data used in the PCFM.

Opex

3.4 During the Construction Period and Commissioning Period, subject to the relevant special conditions in the Licence, the Licensee may be permitted to log operational expenditure (that is not Excluded Project Spend) onto the SRAV.

3.5 The Licensee will be responsible for managing its operational expenditure in accordance with Special Condition F6 (SRAV Capex and Opex during the Construction Period) and G9 (SRAV Capex and Opex during the Commissioning Period).

3.6 Any expenditure incurred that constitutes Excluded Project Spend can be found under Special Condition E1 (Definitions).

3.7 During the Operational Period, there are various categories of operational expenditure which the Licensee is able to recover from users via the Allowed Revenue. These are detailed in the relevant Special Conditions in the Licence. The Opex Building Block is a component of the Calculated Revenue (CR_t).

3.8 In advance of our first Periodic Review, we will consult on the categories of expenditure which we expect to permit the Licensee to be remunerated for via the Opex building block. However, for the purposes of providing forecast or estimated values, this should exclude the following elements:

a) costs relating to De Minimis Business activities;

b) the non-cash element of current service pension costs (if present) charged to the income statement in accordance with accounting standards;

c) statutory or regulatory depreciation and amortisation;

d) profit margins from related parties (except where permitted);

e) costs relating to rebranding a company's assets or vehicles following a change of trading name or logo;

f) compensation payments made in relation to standards of performance;

g) bad debt costs and recoveries (which may be subject to separate review);

h) costs reported other than on a normal accruals basis;

i) costs relating to pass-through items;

j) interest, other financing and corporation tax costs;

k) costs that fall within categories of expenditure that are expected to be funded by either the Onshore Decommissioning Fund or the Offshore Decommissioning Fund; and

l) Other fees and charges.

Capex

3.9 During the Construction Period and Commissioning Period, the Licensee may be permitted to log capital expenditure (that is not Excluded Project Spend) onto the SRAV.

3.10 The Licensee will be responsible for managing its capital expenditure in accordance with Special Condition F6 (SRAV Capex and Opex during the Construction Period) and G9 (SRAV Capex and Opex during the Commissioning Period).

3.11 Any expenditure incurred that constitutes Excluded Project Spend can be found under Special Condition E1 (Definitions).

3.12 During the Operational Period there are a number of different categories of capital expenditure, for which the Licensee may be permitted to log expenditure against the RAV. These are detailed in the relevant Special Conditions in the Licence.

Devex

3.13 The Licensee's Ongoing Devex may be permitted to be added to the SRAV during Construction Period and Commissioning Period.

3.14 If the cumulative Actual Ongoing Devex exceeds the allowance, only the costs up to the allowance limit will be added to the SRAV in accordance with Special Condition F9 (Ongoing Devex during the Construction Period) and G12 (Ongoing Devex during the Commissioning Period).

3.15 During the Operational Period, the Actual Ongoing Devex Costs shall accrue to the RAV in real (Base Year) prices up to the given allowance.

Decommissioning

3.16 The Decommissioning Building Block is a component of the Calculated Revenue (CR_t). Special Condition H16 (Decommissioning Building Block) details the methodology for calculating this building block.

ETS

3.17 The ETS Building Block is a component of the Calculated Revenue (CR_t). Special Condition H14 (ETS Building Block) details the methodology for calculating this building block.

Debt Fees

3.18 The Licensee's Debt Fee, as outlined in Special Conditions F10 and G13 (Debt Fees), may be permitted to be capitalised onto the SRAV at real (Base Year) prices.

Calculated Tax Allowance

3.19 The Calculated Tax Allowance (see section 5 of this handbook) is calculated by the CO2 T&S PCFM and contributes indirectly to Calculated Revenue (CR_t) or, in the case of $TAXA_t$, flows directly into Calculated Revenue (CR_t).

Inflation Inputs

3.20 The CO2 T&S PCFM contains the following PCFM Variable Values relating to the price index:

a) OBR Forecast;

b) CPIH + forecast;

c) Price conversion factor; and

d) Long-term inflation forecast.

3.21 These inputs provide for the model to be able to calculate PI_t as well as a forecast in accordance with the methodology below.

List of PCFM Variable Values

PCFM subheading: Tax Allowance

Corporation tax rate

Variable Value: CT_t

Special Condition: H17 Tax Building Block during the Operational Period

General pool capital allowance expense rate

Variable Value: GCA_t

Special Condition: H17 Tax Building Block during the Operational Period

Special Rates capital allowance expense rate

Variable Value: $SRCA_t$

Special Condition: H17 Tax Building Block during the Operational Period

Structures and buildings capital allowance expense rate

Variable Value: $SBCA_t$

Special Condition: H17 Tax Building Block during the Operational Period

PCFM subheading: Incentives

Target availability

Variable Value: TA_t

Special Condition: H18 Availability incentive

Actual availability

Variable Value: AT_t

Special Condition: H18 Availability incentive

Adjustment factor

Variable Value: AF_t

Special Condition: H18 Availability incentive

PCFM subheading: ETS building block

ETS building block

Variable Value: ETS_t

Special Condition: H14 ETS Building Block

PCMF subheading: Financial inputs

Disposals

Variable Value: Dis_t

Special Condition: F11 Disposals during the Construction / G14 Disposals during the Commissioning Period / H7 Disposals

Debt fees

Variable Value: DF_t

Special Condition: F10 Debt Fees during the Construction Period / G13 Debt Fees during the Commissioning Period

PCFM subheading: Inflation

OBR forecast

Variable Value: $OBR_{forecast}$

Special Condition: N/A

Outturn CPIH + forecast

Variable Value: $CPIH_{t,+forecast}$

Special Condition: N/A

Long-term inflation forecast

Variable Value: $CPIH_{longterm}$

Special Condition: N/A

4. Weighted Average Cost of Capital

4.1 This section provides an overview of the financial and regulatory mechanisms that calculate the value of the Weighted Average Cost of Capital (WACC) used in the Return on Capital building block.

WACC

4.2 The regulatory regime is split into two distinct periods for the purposes of determining the WACC:

a) During the First Regulatory Period, the financial variables used to calculate the PreCOD WACC and PostCOD WACC (Special Condition E1: Definitions), will be set out in the Financial Settlement Document by the Secretary of State prior to the Licence Award; and

b) For subsequent Regulatory Periods, at each Periodic Review, the PostCOD WACC (Special Condition E1: Definitions) will be determined by Ofgem.

4.3 The Licensee's Calculated Revenue (CR_t) includes a return on capital for the Licensees and calculated as a percentage return on the RAV, calculated on an NPV neutral basis in accordance with the Licence.

4.4 Under the Licence, the notional gearing percentage is fixed for the First Regulatory Period and will be subject to re-determination at subsequent Periodic Review.

4.5 The methodology for calculating the PostCOD WACC (as defined in Special Condition E1: Definitions) will be determined by Ofgem during the Post Commissioning Review, in line with our CO2 T&S Economic Guidance.

4.6 The Blended WACC (or Delay WACC) shall replace PreCOD WACC if COD is not achieved by the Scheduled COD for the calculation of Return During Construction and/or Return During Commissioning (in accordance with Special Condition J4), pro-rated in accordance with the number days within the Charging Year that the delay occurs.

5. Tax liability allowances

5.1 The CO2 T&S PCFM calculates Licensees' Tax Building Block reflecting tax liabilities on a notional basis (i.e. as a stand-alone entity) using, among other inputs, corporation tax rates and capital allowance writing down rates. Where rate changes are announced, these can be reflected in the CO2 T&S PCFM by updating the PCFM Variable Values for these rates (CT_t, GCA_t, $SRCA_t$, $SBCA_t$, as well as model inputs associated with the utilisation of First Year Allowances (FYAs)) ahead of each year's Allowed Revenue.

5.2 There are a number of relevant policy choices that may alter Licensees' Tax Building Block:

a) The CO2 T&S PCFM also calculates a tax clawback adjustment. Where a Licensee's actual gearing (calculated using the Adjusted Net Debt Variable Value (AND_t) and the closing RAV position uplifted to Charging Year-end nominal prices in the CO2 T&S PCFM) is greater than the notional gearing level and where its tax deductible net interest costs ($TDNI_t$) exceeds the notional modelled interest costs, the tax benefit derived from its higher tax-deductible interest costs may be returned to Users through an adjustment in the subsequent years Allowed Revenue calculated by the CO2 T&S PCFM. The tax clawback is calculated after the impact of any changes in corporation tax is taken into account; and

b) The Tax building block is also dependent on Tax Trigger Events (TTE), which alter a Licensee's notional tax liability to reflect changes in existing legislation, case law, accounting standards and HM Revenue & Customs (HMRC) policy.

5.3 There are other PCFM Variable Value that may adjust Licensees' Tax Building Block, including:

a) Tax Allowance adjustment mechanism ($TAXA_t$) – this mechanism enables Ofgem to direct an adjustment to the Calculated Tax Allowance following a tax review and having consulted with the Licensee; and

b) Capital allowances allocation rates – the CO2 T&S PCFM contains the rates that are used to allocate a number of expenditure types (Capex, Opex and Devex) to each of the modelled capital allowance pools.

5.4 Tax-related PCFM Variable Values (with the exception of the Tax Allowance adjustment term, $TAXA_t$) feed into the Tax Allowance term (TAX_t). As defined in Special Condition H17 (Tax Building Block during the Operational Period), TAX_t and $TAXA_t$ sum to the Tax Building Block.

5.5 It should be noted that underlying tax liability allowances for the Licensee within the CO2 T&S PCFM may also change because of other PCFM Variable Values, such as changes in allowed Capex and Opex. However, these changes are distinct from the specific adjustments to tax liability allowances discussed in this chapter.

5.6 Any recalculation of the Licensee's tax liability allowances necessarily includes an iterative modelling aspect because an increased allowance gives rise to an increased tax liability which requires an increased tax allowance and so on. The effect can be either positive or negative. This 'Tax Allowance on Tax Allowance' issue is dealt with by the functionality within the CO2 T&S PCFM and is factored into the calculation of the overall Tax Allowance.

Regulatory tax losses

5.7 In some instances, the approach to calculating tax liability allowances could imply that the Licensee could receive a negative allowance. In such cases, the price control treatment is to model a zero allowance and to record the tax loss arising as a 'regulatory tax loss' balance, to be deducted from the total taxable profits before the tax is calculated for any tax liability allowances that would otherwise be allocated to the Charging Year concerned or later Charging Years. The regulatory tax loss balance attributable to each Charging Year (together with a running total) is held within the CO2 T&S PCFM.

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

5.9 Any surrender by a Licensee of losses to a group company will not be reflected within the regulatory loss balance and similarly for consortium relief as set out in HMRC's Company Taxation Manual.

Group tax arrangements

5.10 For the purposes of the approach set out in the Tax Trigger Event and tax review sections of this chapter, tax liabilities, allowances and trigger events are considered on a notional 'Licensee business' basis. Consequently, the following are disregarded in the assessment of tax liabilities and allowances for price control purposes:

a) the claim or surrender of group tax relief (including consortium relief);

b) interest payments (including any coupons on debt instruments or preference share dividends) and receipts that are not tax deductible or chargeable under HMRC rules for the purposes of computing the Licensee's taxable profits, including but not limited to adjustments for transfer pricing and the 'Corporate Interest Restriction Rules'; and

c) any other adjustments required in appendix 1 to Ofgem's open letter dated 31 July 2009 (Claw-back of tax benefit due to excess gearing).

5.11 For the purposes of the approach set out in the tax clawback section 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.

Accounting framework

5.12 For the purposes of the approach set out in the Tax Trigger Event and tax review sections of this chapter, the accounting framework to be applied by the Licensee for the purpose of computing tax liabilities is either:

a) EU-IFRS (HMRC's Company Taxation Manual), if adopted for use by the Licensee;

b) Financial Reporting Standard 101, EU adopted IFRS with reduced disclosures; or

c) UK GAAP under Financial Reporting Standard 102.

Tax Trigger Events

5.13 The CO2 T&S PCFM allows for changes to a Licensee's tax liability allowance, through Tax Trigger Events, for factors external to the Licensee, its owners or controllers that cause a change in its notional tax liabilities[1] for one or more Charging Years. These factors exclude changes to the corporation tax rate and writing down allowance rates, which are accounted for with the PCFM Variable Values (CT_t, GCA_t, $SRCA_t$, $SBCA_t$, as well as model inputs associated with the utilisation of First Year Allowances (FYAs)), but include:

a) changes to applicable legislation;

[1] The tax liability, which would be modelled if the event were taken into account.

b) the setting of legal precedents through case law;

c) changes to HMRC interpretation of legislation;

d) changes in accounting standards; and

e) Unexpected changes to the Licensee's corporation tax liability arising as a result of payments received through the Revenue Support Agreement in the event of a First User Delay.

Notification of Tax Trigger Events

5.14 The Licensee must notify Ofgem on or before 30 August in each Charging Year t-1 of all the Tax Trigger Events that it has become aware of by that time, except those that have been previously notified. This requirement applies equally to events that could be expected to increase or reduce the Licensee's tax liability allowances. For the purposes of complying with this requirement, the Licensee must seek to ensure that it identifies and records Tax Trigger Events.

5.15 If the Licensee fails to notify Ofgem of any Tax Trigger events of which it becomes aware, or should be aware, then subject to the Licensee demonstrating that it uses reasonable endeavours to identify all Tax Trigger Events, this may not be considered a breach of its general licence obligations. We will consider each Tax Trigger Event on its merits on a case-by-case basis.

5.16 The notification in respect of each Tax Trigger Event should include:

a) a description of the Tax Trigger Event;

b) the changes in tax liability allowances that the Tax Trigger Event is considered to have caused and the Charging Years to which they relate;

c) the calculations (including all relevant parameters and values) that the Licensee used to arrive at the amounts referred to in subparagraph (b) – in performing these calculations the Licensee should include a 'Tax Allowance on Tax Allowance' factor as explained in paragraph 5.6 but should ignore the tax trigger deadband;

d) any relevant information provided by HMRC in relation to the Tax Trigger Event;

e) evidence of mitigating measures that the Licensee has taken to minimise any additional liabilities arising from the Tax Trigger Event; and

f) comments from the Licensee on:

i. the relevance of the Tax Trigger Event to its tax position;

ii. whether grounds exist to contest the applicability of the Tax Trigger Event to the Licensee; and

iii. the reporting treatment the Licensee expects to apply in its tax submissions to HMRC and in its Regulatory Accounts or statutory accounts where Regulatory Accounts are not prepared.

5.17 The Licensee's notification should also state whether it considers that the materiality threshold (see paragraph 5.25) has been exceeded for the Charging Years concerned, taking into account the total net amount of tax liability changes (upward and downward) included in the current notification and any previous notifications.

5.18 Ofgem will review any notifications by the Licensee under paragraph 5.14 and may ask the Licensee:

a) for additional information in respect of one or more of the notified events; and/or

b) to submit the results of Agreed upon Procedures specified by Ofgem and carried out by the Licensee's Appropriate Auditor, to assist in confirming the appropriateness and accuracy of the Licensee's calculations.

5.19 Ofgem will by 31 October in the same Charging Year t-1 inform the Licensee whether, in respect of each Tax Trigger Event, it has:

a) agreed (on a provisional or confirmed basis) the change in tax liabilities figure calculated by the Licensee;

b) determined (on a provisional or confirmed basis) a different change in the tax liabilities figure from that calculated by the Licensee; or

c) decided that consideration of any change in tax liabilities should be deferred until further information is available.

5.20 In deciding which of the actions set out in paragraph 5.19 should be taken, Ofgem will consider whether the Licensee has conclusively agreed its tax liabilities for the Charging Year concerned with HMRC. Where there has been a provisional agreement, determination or a deferral of consideration, the Tax Trigger Event values concerned will be subject to further revision in a later Charging Year.

5.21 Where Ofgem decides to use a different change in the 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 calculations. The Licensee has the right to reply setting out its objections, which Ofgem will consider.

5.22 Ofgem will also by 31 October in each Charging Year t-1 notify the Licensee of any Tax Trigger Events that it proposes to take into account that have not been included in a notification sent to Ofgem by the Licensee. The Licensee has the right to reply setting out its objections, which Ofgem will consider.

5.23 If Ofgem has not finished considering any matters raised by the Licensee under paragraph 5.21 or paragraph 5.22 before notifying the Licensee of Tax Trigger Events that it proposed to take into account, Ofgem will inform the Licensee of any provisionality it has applied in determining the revised Tax Trigger Event values that it proposes to apply, that might entail a further revision to those values in the next Charging Year.

5.24 Where a Tax Trigger Event changes the allocation of allowable expenditure into different statutory capital allowance pools, the applicable allocation and allowance rates will be adjusted to take into account the new expected allocation basis from the effective date of the new requirement. Ofgem will work with Licensees to agree the financial effect of revised tax pool allocation requirements where these are not straightforward.

Materiality threshold and 'deadband'

5.25 A materiality threshold is applied to Tax Trigger Events during the Price Control Period and a monetary threshold (fixed in pounds) amount for each Charging Year is included among the tax trigger deadband values for the Licensee in the CO2 T&S PCFM 'Finance & tax' worksheet (tax trigger calculations section). The calibration of the materiality threshold and deadbands for the CO2 T&S PCFM during the Pre-COD phase is based on the materiality threshold of the similar thresholds in the networks sector. We expect to consult on the appropriate calibration of this level at the Post Commissioning Review.

5.26 A change to the Licensee's notional tax liability allowance for a particular Charging Year is only applied where one or more trigger events would result in a tax liability allowance change for that Charging Year whose absolute value is greater than the threshold amount. Furthermore, any change to the tax liability allowance (upward or downward) is limited to the amount that is in excess of the threshold amount for the Charging Year concerned. Additionally, Tax Trigger Events will only be taken into account for the purposes of increasing the Licensee's tax liability allowances where the Licensee has demonstrably used its reasonable endeavours to minimise any increase in its tax liabilities.

5.27 Where the change to the Licensee's tax liability allowance for a particular Charging Year is below the threshold, subsequent Tax Trigger Events, relating back to that Charging Year, could cause the threshold amount to be exceeded. In that case, a change to the Licensee's tax liability allowance for the Charging Year concerned (a revised TTE value) would be determined once the threshold had been exceeded.

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

Logging of trigger events

5.29 Ofgem will keep a log of Tax Trigger Events that have been subject to notifications by it or by the Licensee, showing for each Tax Trigger Event:

a) a description of the event;

b) the name of the party who notified the event (Ofgem or the Licensee);

c) the date of notification;

d) the amount of any change in the Licensee's tax liabilities that has been determined; and

e) details of any Tax Trigger Events for which a determination is in abeyance and a description of the outstanding actions to be taken.

Tax review

5.30 At Licence Award, the value of $TAXA_t$ is set at zero for the duration of the First Regulatory Period. Under Special Condition H17 (Tax Building Block during the Operational Period), the Licensee's Calculated Tax Allowance can be updated for any periods thereafter following a tax review. Ofgem may consider initiating a tax review if one or more of the events described below occurs.

Potential tax review trigger events

5.31 Ofgem may consider triggering a tax review for the relevant Licensees in the following scenarios:

a) if there are material, unexplained differences between the Calculated Tax Allowance and Actual Corporation Tax Liability, which have not been adequately explained in the supporting commentary to the reconciliation (the reconciliation referred to is the Tax Reconciliation template reconciling the notional tax allowance per the CO2 T&S PCFM and actual tax liability per their latest CT600 forms. This template forms part of the Licensee's annual CO2 T&S PCFM submissions);

b) if Ofgem is notified in writing by a Licensee or stakeholder of any event that the Licensee or stakeholder considers will have a material, unexplained impact on the Licensee's Actual Corporation Tax Liability; or

c) if a Licensee undergoes a material change in circumstances, for example a change in ownership, that is likely to have a material, unexplained effect on its actual tax liability.

d) if we become aware of circumstances which lead us to believe an efficient notional company would make materially different choices with respect to the reliefs and allowances available to it, to those assumed the calculation of the tax allowance assumed in the PCFM.

Materiality

5.32 Under paragraph 5.31, an unexplained difference between the Calculated Tax Allowance and Actual Corporation Tax Liability will be subject to the same materiality threshold that is applied to Tax Trigger Events during the Regulatory Period as described in paragraph 5.25 of this handbook. For the avoidance of doubt, an unexplained difference is considered material if it exceeds the threshold described.

5.33 Where there are numerous unexplained differences in the submitted Tax Reconciliation which are individually immaterial but when taken in aggregate are greater than the materiality threshold amount, the Licensee is required to provide supporting explanations in the commentary to the Tax Reconciliation.

Notifying Ofgem

5.34 Any notification by the Licensee under paragraph 5.31b) must be made in writing to Ofgem on or before 31 July in respect of the Charging Year two years prior and include statements setting out:

a) the reason for the notification including a description of the specific events that the Licensee considers will have an impact on its Actual Corporation Tax Liability;

b) the impact of the specific events on the Licensee's Actual Corporation Tax Liability and whether it is considered material;

c) the Charging Years that the Licensee considers will be affected by the tax review trigger event;

d) a calculation and the basis of the calculation for any proposed adjustments to the value of the $TAXA_t$ term; and

e) supporting evidence including any relevant information or correspondence received from HMRC and any other information that the Licensee considers is relevant.

5.35 Any notification by other stakeholders under paragraph 5.31b) must be made in writing to Ofgem on or before 31 July in respect of the Charging Year two years prior and must include as much information as is available to the stakeholder in line with the criteria set out in paragraph 5.34. Where there are gaps in the information provided by the relevant stakeholder, Ofgem will engage with the applicable Licensee to ascertain whether the Licensee itself should submit a notification under paragraph 5.31b).

5.36 Where Ofgem receives a notification from any stakeholder after 31 July in any Charging Year and an adjustment is made following the process outlined in paragraphs 5.38 to 5.46, that adjustment will be made in the subsequent Charging Year following the direction of the $TAXA_t$ term. In such a case, the functionality of the CO2 T&S PCFM means that a Time Value of Money Adjustment will be applied.

5.37 If an adjustment is made to the $TAXA_t$ term for a period prior to the Charging Year in which the tax review is triggered, any resultant changes to Allowed Revenue will, subject to a Time Value of Money Adjustment, be brought forward. For the avoidance of doubt, such an adjustment will not have any retrospective effect on a previously published value of Allowed Revenue.

Preliminary assessment

5.38 Where one or more of the Tax Trigger Events set out in paragraph 5.31 occur, Ofgem will perform a preliminary assessment before deciding whether to undertake a tax review.

5.39 This preliminary assessment may involve Ofgem requesting further information from the affected Licensees and from the stakeholder who submitted the notification under paragraph 5.31b) and explaining that it is considering undertaking a tax review.

Review process

5.40 If the preliminary information requested does not suitably address the concerns raised, Ofgem may undertake a formal tax review, for which it will procure, at the Licensee's expense, a review by an Appropriately Qualified Independent Examiner.

5.41 Ofgem will notify the Licensees affected in accordance with Special Condition H17.12 (Tax Building Block during the Operational Period) that it intends to commence the review.

5.42 Throughout the course of the tax review, the Licensee will have opportunities to engage with both Ofgem and the Appropriately Qualified Independent Examiner, and to comment on the final report before it is submitted.

After the review

5.43 Following the tax review, Ofgem will consider the findings of the Appropriately Qualified Independent Examiner's report. Where the examiner's report confirms that a material, unexplained difference exists between the Licensee's Calculated Tax Allowance and its Actual Corporation Tax Liability, Ofgem will direct that an adjustment be made to correct for the effect of the confirmed material, unexplained difference. Ofgem will make a direction adjusting the Tax Allowance through the PCFM Variable Value $TAXA_t$ in accordance with Part C of Special Condition H17 (Tax Building Block during the Operational Period).

5.44 Before making a direction, Ofgem will consult on the proposed adjustment to $TAXA_t$ for no less than 28 days.

5.45 Where the Appropriately Qualified Independent Examiner’s report contains information that is considered confidential or market sensitive, the Licensee may request that this information be redacted from any publication. If Ofgem agrees, the relevant information will excluded from any publications.

5.46 The adjusted value will be reflected in the CO2 T&S PCFM and will be published on the Ofgem website by 30 November in each Charging Year.

5.47 For the avoidance of doubt, there will be no duplication or double-counting of adjustments between the $TAXA_t$ term and the other tax mechanisms that feed into the TAX_t term.

Tax allowance methodology

5.48 As the sector evolves and projects commence operations, we expect to proactively review our approach to calculating the tax allowance.

5.49 In particular, we expect to review the following areas of our approach:

a) Amortisation of Debt Fees;

b) Disclaiming capital allowances;

c) The tax treatment of specific items, such as repair costs;

d) The calculation of deductible notional interest costs;

e) First User Delay payments.

f) Decommissioning

5.50 Licensees will be invited to engage with us through The Working Group and elsewhere, where appropriate, with a view to providing representations prior to our first Periodic Review.