

Consultation

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Overview:

This document provides instructions and guidance to the three electricity transmission owners - National Grid Electricity Transmission plc, SP Transmission Ltd and Scottish Hydro Electric Transmission plc - to enable them to complete the reporting requirements associated with the transmission price control from 1 April 2013 to 31 March 2021.

This is the first transmission price control to reflect the new RIIO (Revenue = Incentives + Innovation + Outputs) model.

RIIO-T1 Electricity Transmission Price Control – Regulatory Instructions and

Guidance: Version 1.3

Context

This document contains the electricity transmission price control cost, outputs, financial and revenue Regulatory Instructions and Guidance (RIGs).

The purpose of this document is to provide a framework to allow Ofgem to collect accurate and consistent information from the three electricity transmission owners (TOs) - National Grid Electricity Transmission plc (NGET), SP Transmission Ltd (SPTL) and Scottish Hydro Electric Transmission plc (SHE Transmission) and electricity system operator (NGET SO).

A number of licence conditions require the three electricity TOs to provide us with this information. The main licence condition for the purposes of this document is Standard Condition B15: Regulatory Instructions and Guidance This guidance applies to reporting from the period 1 April 2013 until 31 March 2021.

Associated documents

Supporting Documents

RIIO-T1 Electricity Transmission Price Control – Costs and Outputs Reporting Template

RIIO-T1 NGET Revenue Reporting Templates

RIIO-T1 SHE Transmission Revenue Reporting Templates

RIIO-T1 SPTL Revenue Reporting Templates

Other Documents

RIIO-T1: Final Proposals for NGGT and NGET - Overview

RIIO-T1: Final Proposals for NGGT and NGET - Outputs, incentives and innovation

RIIO-T1: Final Proposals for NGET and NGGT - Cost assessment and uncertainty

RIIO-T1: Final Proposals for NGGT and NGET - Finance

RIIO-T1 and RIIO-GD1: Licence conditions – Statutory consultation

RIIO-T1 and RIIO-GD1: Draft Regulatory Instructions and Guidance - Consultation

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1. Introduction

Chapter Summary

This chapter sets out the purpose and structure of the Regulatory Instructions and Guidance (RIGs) which will apply to the electricity transmission owners for RIIO-T1. It also sets out guidance on the process for reporting under the RIGs and our audit requirements.

Background

- 1.1. This is the first price control to be conducted under our new RIIO (Revenue = Incentives + Innovation + Outputs) model. RIIO-T1 is the regulatory framework to apply to electricity and gas transmission companies from 1 April 2013 to 31 March 2021.
- The Regulatory Instructions and Guidance (RIGs) provide a framework which 1.2. enables Ofgem to collect data from the transmission owners (TOs) during the RIIO-T1 period. We collect data to enable us to administer the Special Conditions of the TOs' licences (the conditions which relate to the price control) and our price control Final Proposals. For example, the RIGs allow us to monitor TOs' performance against the outputs that they are required to deliver, to calculate any rewards or penalties associated with incentive mechanisms, and to determine adjustments to allowances determined within period, i.e. costs determined through uncertainty mechanisms. The RIGs also provide a database of TO performance which we draw on to set cost proposals at subsequent review periods. The RIGs inform TOs about the information we plan to collect, quide them on how to provide this information and enable licensees to put systems in place to collect the data to the detail we require. The framework also allows us to collect data on provisional Totex expenditure for use in the annual iteration process and the calculation of the MOD term (see glossary for definition).

Legal framework

1.3. For RIIO-T1 the reporting requirements have been consolidated in a single new licence condition:

 Standard Condition B15: Regulatory Instructions and Guidance ('the RIGs Licence Condition').

¹ Totex is provisional as it may be adjusted as a result of subsequent efficiency reviews or for the correction of any errors either after the 31 July or in subsequent years.

- 1.4. The RIGs Licence Condition sets out the scope and governance arrangements for the RIGs.
- 1.5. The RIGs Licence Condition consolidates the reporting related provisions, which were previously included within a number of licence conditions, into a single condition. Having a single licence condition has not altered the nature of the information that the TOs need to provide.
- 1.6. In the event of any inconsistency between the licence conditions and these guidance, the licence conditions will take precedence.

Components of the RIGs

Overall structure

- 1.7. The RIGs comprise four main elements:
 - templates for reporting data (in MS Excel v.2007 or newer)
 - templates containing the calculation of the revenue elements revenue reporting (including performance against incentives) (in MS Excel v.2007 or newer)
 - templates for providing commentaries against the data (in MS Word) [to be developed]
 - instructions and guidance on how to report the data (in MS Word).

RIGs templates

- 1.8. The data templates have been designed to be consistent with RIIO-T1 price control Final Proposals. Where possible we have consolidated previous reporting requirements as part of the RIGs.
- 1.9. The key points to note in completing the RIGs templates are:
 - The Licensee must take all reasonable steps to ensure the quality of its RIGs data. Quality data will in all material respects be accurate, complete and fairly presented.
 - The Licensee must notify Ofgem of the possibility of any significant revisions to improve data quality. This notification must be issued to Ofgem as soon as it becomes evident to the Licensee that a reasonable likelihood exists of significant inaccuracies in any of its previously submitted data.
 - Some of the workbooks in these RIGs have been designed to link to other workbooks. These links must be retained by the TOs in the version submitted to Ofgem. Failure to do so will be considered non-compliant with the RIGs.

- The RIGs tables are colour coded to reflect the action required. Yellow cells represent input fields. Light grey is used to denote cells containing a formula. White cells are used where cells do not need to be completed.
- All financial values should be input in the real price of the year to which the RIGs relate, i.e. actuals are in the costs of the year, and forecasts include impacts of real price effects, but not inflation.
- Unless otherwise indicated in the guidance document or templates, actual financial values should be provided in £ million to a minimum of three decimal places, and displayed at one decimal place, with financial values reconciling with the audited regulatory accounts. However, TOs are required to provide all actual financial data to the highest reasonable level of accuracy available from their source systems, and commensurate with the purpose for which such data is intended taking into consideration the appropriate allocations that are necessary to complete the tables.
- Workload units and outputs should be reported at the highest level of accuracy from the source systems and commensurate with the purpose for which such data is intended taking into consideration the appropriate allocations that are necessary to complete the tables. Unless stated in the licence or elsewhere in this document. Workload and outputs should be entered in the unit of measurement set out in this guidance or in the template
- Unless otherwise indicated in the guidance or templates financial values should be input as positive values.
- Where a reportable value is zero or not applicable to the TO then a zero must be input rather than the cell being left blank.
- Where a table clearly states that data is to be filled in by another TO other than the licensee, the licensee does not need to populate the data.

Instructions and guidance

- 1.10. The purpose of this document is to provide instructions and guidance to enable the TOs to complete the associated workbooks. This document provides information on:
 - the systems, processes, procedures, recording and provision of the required data
 - reporting units
 - levels of accuracy (including rounding)
 - the methodology for calculating or deriving required numbers
 - the provision of the data to the Ofgem (format, frequency etc)
 - any audit or examiner requirements
 - reasons for the data requirement
 - explanations of how Ofgem will monitor, assess, and enforce compliance
 - a glossary of terms used in the workbooks.

1.11. For the avoidance of doubt, this document should be read in conjunction with the RIGs Licence Conditions. Where definitions are provided within the licence conditions, they are not duplicated in this document.

Provision of forecast data

- 1.12. There will be a requirement to forecast summary costs, workload and outputs for any remaining years of RIIO-T1 price control period. During RIIO-T1 Ofgem will require forecasts into RIIO-T2. This requirement will be discussed with TOs.
- 1.13. It is acknowledged that forecasts may not be as accurate as actual reported data. Nevertheless it is expected that TOs will take all reasonable measures to ensure that forecasts are as robust as possible.

Provision of Indirect Allocation Methodology

1.14. TOs must provide their methodology for allocating indirect costs as part of their reporting for 2013/14 reporting year and subsequently inform Ofgem of any changes to this methodology annually.

Commentary

- 1.15. Alongside the submission of its templates, each TO must complete the associated commentary. We may provide a template for completion of the associated commentary. A commentary is required in order to:
 - (1) Give Ofgem an understanding of annual business performance in terms of; expenditure, workload and outputs.
 - (2) Provide a summary explanation of the forecast, including outputs, secondary deliverables, costs and workload.
 - (3) Provide an understanding of material variances against previous year's actuals, forecasts and Final Proposals for outputs, secondary deliverables, costs and workload.
 - (4) To inform Ofgem of any organisational changes / performance improvements, including modification/enhancements to allocation methodology and/or data capture e.g. systems.

[Ofgem and the licensees will work together to develop the requirements of the commentary as part of the overall annual reporting]

Reporting under the RIGs

Timescales for reporting

- 1.16. The reporting year for the provision of information under the RIGs is from 1 April to 31 March in the following calendar year. The excel templates for reporting on summary costs, workload and outputs should include forecasts for each of the remaining years of the RIIO-T1 price control period.
- 1.17. Except where otherwise stated, the TOs must provide the information required under the RIGs as soon as reasonably practicable and in any event not later than 31 July following the end of the reporting year to which such information relates. This is the latest date that TOs can submit information unless Ofgem has previously consented to an extension in writing.
- 1.18. Most of the RIGs (with the exception of the Pension Pack which is required on a triennial basis) will be submitted on an annual basis,
- 1.19. For guidance on completion of the Pension Pack please see the Regulatory Instructions and Guidance: Triennial Pension Reporting Pack supplement².

Form of submission

- 1.20. Instructions for the electronic submission of the workbooks will be circulated to each TO's regulation manager in advance of each submission deadline. However, if there is any doubt about the method of submission, the licensee must contact Ofgem.
- 1.21. The submission must be accompanied by a letter signed by a director on behalf of the TO confirming that the data is accurate and has been provided in accordance with the RIGs.

Resubmissions

- 1.22. TOs are required to seek the agreement of Ofgem or person nominated by Ofgem before resubmitting any information provided in accordance with these RIGs.
- 1.23. In any such instance the report concerned must be resubmitted in full. The resubmission must only be accompanied by a letter signed by a director where significant changes have been made and where Ofgem and/or the TO decide such a letter is required. The volume of supporting information the licensee will be required to submit to support any resubmission will be dependent on the nature of any required resubmission.
- 1.24. For each resubmission a detailed explanation must be provided in the changes log in the RIGs listing every cell that has been amended. The explanation must include sufficient commentary to explain the reasons for the resubmission.

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² Issued for comment 8 March 2013

1.25. In relation to the detailed return required as part of revenue reporting, this must only be resubmitted where a restatement is necessary in the opinion of the appropriate auditor.

Review

- 1.26. Once the TOs have submitted the information to the Ofgem, Ofgem or a person nominated by it ('a reviewer') will undertake a detailed review of the information. A review may include a visit to each TO for discussion of the information submitted. Such visits will be agreed with the TOs in advance.
- 1.27. Where a reviewer has been nominated, the reviewer will enter into an agreement with the licensee to maintain confidentiality on reasonable terms.

Appointing an examiner

- 1.28. In accordance with the RIGs Licence Condition the TO must permit a person nominated by Ofgem to examine:
 - the systems, processes and procedures for measuring the specified information
 - the specified information collected by the licensee
 - the extent to which the systems, process and procedures and the specified information complies with the RIGs.

Audit requirements in relation to revenue reporting

1.29. In accordance with the RIGs Licence Condition, Ofgem will identify the specified information which is to be subject to audit, the terms on which an auditor is to be appointed by the licensee for that purpose and the nature of the audit to be carried out by that person. We will issue an Agreed Upon Audit Procedures (AUP) for use by an appropriate auditor by 31 March of the year of submission.

Publication and sharing of templates

- 1.30. It is a requirement for TOs to publish, on its company website, certain information from the submitted data templates, relating to their annual performance and forecast. The Tables are 2.3, 2.4, and 2.5
- 1.31. TOs must publish the agreed data no later than 30 September following the end of each reporting year.
- 1.32. Ofgem may publish any further information contained in the templates, but will notify TOs in advance of any intention to do so and will make any necessary redactions.

RIIO-T1 Electricity Transmission Price Control – Regulatory Instructions and

Guidance: Version 1.3

Structure of this document

1.33. This document is divided into sections reflecting the different component parts of the RIGs workbooks. These are as follows:

- Chapter 2 provides general instructions and guidance for completing the data template worksheets
- Chapter 3 provides instructions for the completion of the financial issues worksheets.
- Chapter 4 provides instructions for the completion of the total expenditure worksheets.
- Chapter 5 provides instructions for the completion of the operating expenditure worksheets.
- Chapter 6 provides instructions for the completion of the capital expenditure worksheets.
- Chapter 7 provides instructions for the completion of the electricity network data worksheets.
- Chapter 8 provides instructions for the completion of the outputs worksheets.
- Chapter 9 provides instructions for the completion of the revenue reporting worksheets.
- Chapter 10 provides guidance for the submission of a supporting commentary. [this area needs to be developed by Ofgem and the TOs]

2. General Instructions for completing data template worksheet

Chapter Summary

The purpose of this chapter is to provide general instructions for completing the data template(s) worksheets by TOs. This is to enable Ofgem to effectively monitor the performance of the companies in relation to the allowances set as part of RIIO-T1 Final Proposals and against previous year's submitted actuals and forecast.

Overview

- 2.1. The data templates are a series of tables in MS Excel workbooks. The purpose of the workbooks is to facilitate the submission of uniform and comparable financial, and outputs information from TOs. This enables comparison of TOs, with Final Proposals and prior year's performance, and comparative regulation on a consistent basis throughout the RIIO-T1 period. The workbooks should support and be consistent with the RIIO-T1 Final Proposals.
- 2.2. The TOs should submit accurate and where instructed audited figures of their costs and revenues for the relevant period. Further guidance is provided in this chapter.
- 2.3. The workbook has been designed to have single data entry where possible in order to avoid duplication and to facilitate reconciliations and balance checks.

Accounting policies

- 2.4. All costs are to be entered on a cash basis. Cash means exclusive of provisions and accruals and prepayments that are not incurred as part of the ordinary level of business. TOs should use the same accounting policies as in the preparation of the regulatory financial statements, in accordance with UK GAAP or IFRS unless otherwise stated.
- 2.5. In the event that the accounting policies applied to prepare the template differ from those used in the regulatory financial statements (for some or all years) you must include appropriate details including quantification of the difference.

Structure of the template

- 2.6. The template has been separated into the following sections:
 - series 1 finance.
 - series 2 Totex summaries.
 - series 3 opex

- series 4 capex.
- series 5 network asset data.
- series 6 network output data.
- Revenues tables

Data entry

2.7. As the templates are a series of tables in MS Excel workbooks, links and formulae have been included to limit, where possible, the amount of manual data entry required. The workbooks have not been "locked", but TOs are not to change any formulae or formats (including insertion of deletion of rows or columns, moving any cells, or altering any text, figures, or formulae in any cells not shaded yellow) without instruction from Ofgem first. If a change is necessary (to correct an error, for example), Ofgem will notify TOs of the correction to be made.

Definitions

- 2.8. Detailed definitions are included in the specific instructions for the tables unless they affect more than one table. TOs must ensure that the definitions are clearly understood and are complied with when entering any data into the template. Where there is doubt or uncertainty, please refer to Ofgem for clarification. This is to ensure consistency and comparability of data entry across TOs.
- 2.9. The Regulatory Asset Value (RAV) is a key building block of the price control review. RAV represents the value upon which the companies earn a return in accordance with the regulatory cost of capital and receive a depreciation allowance. Additions to the RAV are calculated as a set percentage of Totex. The definition of Totex is detailed in Appendix 2.

Use of Estimates and Allocations

2.10. Apportionments should be avoided wherever possible. However where a TO (and any affiliate or related undertaking of the licensee) has to do this to complete the tables, the basis of apportionment must be provided. Changes in apportionments should also be highlighted.

Additional information

2.11. If TOs consider additional information beyond that requested is necessary to develop a complete understanding of the information presented in the tables then such information should be included in an appendix to the submission.

Template errors

2.12. Where errors in a worksheet are identified then Ofgem should be notified as soon as possible. Ofgem will make the necessary corrections, log them in the change log and notify the TOs.

3. Instructions for completing the financial issues worksheets

Chapter Summary

The purpose of this chapter is to inform the completion of the financial issues worksheets by each TO. This is to enable Ofgem to effectively monitor outturn against the appropriate allowances, assess future allowances and quantify any adjustments as required in the Final Proposals.

Introduction

- 3.1. The purpose of these worksheets is to facilitate the submission of uniform and comparable financial information from licensees. This enables comparison with business plans, comparison with prior years and comparative regulation on a consistent basis throughout the RIIO-T1 period.
- 3.2. Licensees should submit accurate (and where instructed) audited figures of their costs and revenues for the relevant period. Further guidance is provided below.
- 3.3. All costs are to be entered on a cash controllable basis. This means exclusive of all provisions and all accruals and prepayments that are not incurred as part of the ordinary level of business.

Additional information required

- 3.4. The following additional information is also required:
- Corporation Tax return (CT600) and supporting tax computations for the licensee's last statutory accounting financial year;
- Final agreed corporation tax return for all years closed by HMRC in the regulatory year and up to the date of submission of RRP;
- Reconciliation of changes to opening capital allowance pools from prior year submission(s) with documentation to support Table 1.8 and 1.9;
- Audited Annual Pension Scheme accounts; and
- Copy of the Certification by senior accounting officer that is prescribed in FA2009, which certifies annually that the accounting systems for the company and its subsidiaries are adequate for the purpose of accurate reporting of 'taxes and duties". This may be for the group in which the licensee is a subsidiary.

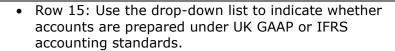
Overview of worksheets

- 3.5. The worksheets included within this chapter are:
 - 1.1 Income statement

- 1.2 Financial position
- 1.3 Cash Flow
- 1.4 Reconciliation to Regulatory Accounts
- 1.5 Net debt and interest
- 1.6 Fixed asset disposals
- 1.7 Tax computation
- 1.8 Tax pools
- 1.9 Tax allocations of spend
- 1.10 Tax allocations CT 600
- 1.11 Tax claw back
- 1.12 Financing requirements
- 1.13 Pensions defined benefit

1.1 Income statement

Purpose and use by Ofgem	The purpose of this table is to obtain a standard form of each licensee's Profit & Loss / Statement of Comprehensive Income, consistent with the Regulatory Accounts. It will be used to provide the data on a consistent and comparable basis across licensees and time. It will be used to inform financial monitoring of the company as reported elsewhere. The table is the reference point for the reconciliation of certain audited amounts to costs reported elsewhere within the suite of cost, financial issues and revenue workbooks. It will also be used to identify differences in reporting should licensees switch from UK GAAP to IFRS during the Price Control Period.
Guidance on completing this worksheet	This table should be populated from and agree to the entity's audited Regulatory Accounts for the relevant year. Whilst there are more categories than in the Profit & Loss / Statement of Comprehensive Income in audited Regulatory Accounts the additional detail is required to facilitate reconciliation/agreement with other tables. • This table should be completed in £m nominal. • Except where stated below, each row of the table should be completed for the entity as a whole and also for
	individual licensees for the latest regulatory year and the prior year to act as a comparison.



- Row 17: Insert total revenue (including operating income) as shown in the Regulatory Accounts.
- Rows 20 to 23: Insert operating costs net of other operating income, depreciation and amortisation costs.
 These should agree to the audited Regulatory Accounts.
- Row 26: Operating profit before exceptional items will be populated automatically.
- Row 29: Insert the amount of any profit or loss arising from the disposal of fixed assets for the prior year only.
 Profit or loss arising on assets disposed in the latest financial year are automatically populated from table 1.6 disposals.
- Row 30 to 33: Insert details and values of all exceptional items. Exceptional items of income should be entered as a negative figure, and exceptional expense items should be entered as a positive figure.
- Row 35: Operating Profit before finance costs and tax will be populated automatically.
- Rows 38 to 42: Enter the values of finance costs and investment income. Note "Other finance income/Investment income" should include nontransportation related items, financial movements on pension schemes and all movements on derivative financial instruments.
- Row 45: The profit before tax will be populated automatically.
- Rows 49 to 53: Enter current tax and deferred tax information. This should equal current tax and deferred tax reported in the Regulatory Accounts.
- Rows 61 to 66: Insert information on movements in gains and/or losses. This should agree to the audited Regulatory Accounts.

None

1.2 Financial position

Purpose and use by Ofgem	The purpose of this table is to obtain a standard form of each licensee's Balance Sheet / Statement of Financial Position, consistent with the Regulatory Accounts. It will be used to
	provide the data in this statement in the Regulatory Accounts on a consistent and comparable basis across licensees and

	time. It will be used to check the level of total debt reported elsewhere and what other liabilities the licensee has. In addition, it will also be used to identify differences in reporting when licensees switch from "old" UK GAAP to EU-IFRS or new UK GAAP (i.e. FRS101 and FRS102) during the price control period. This table must be populated from, and agree to, the audited Regulatory Accounts for the relevant year. Whilst there are
	more categories than in the Balance Sheet / Statement of financial position in the entity's audited Regulatory Accounts the additional detail is required to facilitate reconciliation/agreement with other tables.
Guidance on	This table should be completed in £m nominal.
completing this worksheet	 Each row of the table should be completed for the entity as a whole and also for individual licensees for the latest regulatory year and the prior year to act as a comparison.
	 Rows 18 to 72: Enter the values of assets, creditors, provisions and shareholders funds and reserves as reported in the audited Regulatory Accounts.
	 Row 69: The "Cash flow hedge reserve" on the balance sheet is only to be used by companies reporting under IFRS or new UK GAAP (i.e. FRS101 and FRS102).

None	

1.3 Cash flow

Purpose and use by	The purpose of this table is to obtain a standard form of each
Ofgem	licensee's cash flow position consistent with the Regulatory Accounts. It will be used to provide the data in this statement in the Regulatory Accounts on a consistent and comparable basis across Licensees and time.
	This sheet is linked to movements implied by the Profit & Loss / Statement of Comprehensive Income and Balance Sheet / Statement of Financial Position as far as practicable. Inputs are required to replicate the cash flow in the Regulatory Accounts.
Guidance on	This table should be completed in £m nominal.
completing this worksheet	 Each row of the table should be completed for the entity as a whole and also for individual licensees for the latest regulatory year.
	Rows 16 to 23: These rows are automatically populated

from movements in the Profit & Loss / Statement of Comprehensive Income and Balance Sheet.
 Rows 24 to 26: Insert the value of movements in stocks; debtors; and creditors excluding any non-cash capital creditors.
 Rows 27: Enter the accounting value of any non operating income. This refers to any income received that is not derived from operations.
 Rows 28: Insert the value of any exceptional items that are non-cash in nature.
 Rows 29 to 32: Ensure the net cash inflow / outflow from operating activities reconciles to the totals reported in the audited Regulatory Accounts. Where there are additional items required to reconcile to insert the details and values of the other item(s).
 Rows 36 to 62: Insert values on a cash basis of payments and receipts as per the audited Regulatory Accounts.
 Rows 68 to 74: Complete the reconciliation between opening debt and the closing debt implied by the decrease/ increase in net cash.

None

1.4 Reconciliation to Regulatory Accounts

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Purpose and use by Ofgem	The purpose of this table is to reconcile Opex and Capex balances derived from the Regulatory Accounts to the values reported in the cost tables.
	For this reconciliation, net operating costs as per the audit Regulatory Accounts are compared to Controllable Opex as reported in Table 3.1 - Opex summary. Tangible and intangible asset additions (excluding non-cash items) as reported in the Regulatory Accounts are compared to the total of Totex categories in table 2.1 - Totex PCFM; i.e. Load Related Capex, Asset Replacement Capex, Other Capex and Non-operational Capex.
Guidance on	This table should be completed in £m nominal.
completing this worksheet	 Each row of the table should be completed for the entity as a whole and (where applicable) into individual licensees for the latest reporting year.
	Row 16: Insert the value of operating income as a

	negative value.
•	Row 15 to 17: Row 17 automatically calculates Opex per the Regulatory Accounts by calculating operating costs incurred (derived from the table 1.1 – Income Statement) net of operating income (row 16).
•	Rows 20 to 34: Insert details of all adjustments to reconcile the Opex value per the Regulatory Accounts (row 17) to Opex as reported in the cost tables (row 37).
•	Row 37 is to be populated from the Regulatory accounts except where linked to Opex Summary table
•	Rows 43 to 47: Enter the amounts of non-current asset additions into rows 43 and 44 as positive values. In rows 45 to 47 insert amounts relating to non-cash items as negative values.
•	Rows 51 to 65: Insert details of all adjustments to reconcile the Capex value per the Regulatory Accounts (row 48) to Capex as reported in the cost tables (row 68).

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	None	

1.5 Net debt and interest

Purpose and use by Ofgem	The purpose of this table is to collect details of all debt instruments and associated financial derivatives by type. This information is used to compare gearing levels to the regulatory modelling data; and to enable the calculation of the tax benefit of excess gearing. In addition, the table provides information on derivative financial instruments to facilitate understanding of existing debt structures.
Guidance on completing this worksheet	Where debt is of a short-term nature (and can therefore be replaced several times in a year) the year-end balance must be shown in this table.
	• For Sections A to E and Section H, the interest rate for the year must be that relating to the year-end debt. The value of debt should be stated on the same basis as the Regulatory Accounts. Where an item is reported in the income statement as debits or cash out flows it should be entered as a positive value. Where an item is a credit or cash inflows it should be entered as a negative value.
	Cells L14 to N20: Enter details of the allocation of debt for the reporting year to each licensee in the group and total attributable to non-regulated companies. This should be reported in percentage terms in column L. Column M should record the value of statutory net debt, including all financial derivatives, allocated to the

- respective business segment. In Column N, enter the regulatory definition of net debt (as defined below) and allocate by business segment.
- Schedule A: In rows 37, 38 and 40 insert the amounts of collateral under derivative agreements (either posted with the banks which should be entered as a negative (row 37), or posted by the bank, which should be entered as a positive value (row 40)). In addition, enter the value of any short-term deposits as a negative value and enter overdraft amounts as a positive value.
- Schedule B: This section captures all external debt instruments held by the group, with a cross-reference to financial derivatives that are used to hedge each debt instrument. For each debt instrument held enter details of:
 - a) the nature of the instrument (e.g. index-linked corporate bond);
 - b) the name of the lender;
 - c) the issue date;
 - d) the interest rate, indicating whether the rate is fixed or floating; and
 - e) the value of the instrument, which should be entered into the appropriate maturity profile of when the debt falls due for repayment
 - f) The reference of any associated financial derivative stated in Schedules G to M, or the name of the counterparty. In addition, provide an indication as to whether the value and duration of the derivative is exactly matched to the debt instrument, or is greater than (overhedged) or less than (under-hedged) the debt instrument.
- Schedule C: This section collects details of loans made to the licensee from other group companies and includes a high-level details of financial derivatives held by the company to hedge each debt instrument. For each debt instrument enter the details as set out for Schedule B above.
- Schedule D: This section captures loans made by the licensee to other group companies. For each debt instrument complete the table as set out in parts a) to e) for Schedule B above.
- Schedule E: This section collects details of inter-company balances relating to the licensee that are due to / from other group companies. For each transaction type enter details of:
 - a) A description of the type of transaction
 - b) The terms of the transaction type, including settlement terms, redemption agreement and contractual arrangements

- c) Indicate whether the amount is payable or receivable
- d) the amount, which should be entered with the appropriate maturity profile
- Schedule F: This section should be populated with details of any guarantees given by the licensee on behalf of other group companies. For each guarantee, enter details of:
 - a) type of guarantee
 - b) name of the other group company
 - c) reason for granting the guarantee
 - d) date of consent or derogation from the Authority
 - e) purpose of the guarantee, including the expected duration of the guarantee
 - f) value of the guarantee in £m
- Schedules G to M: These tables capture details of all interest rate, currency and index-linked swaps, forward contracts and other financial derivatives. Enter the details of all financial derivative contracts in the relevant schedule, including details of:
 - a) Contract date
 - b) Name of the counterparty
 - c) Credit rating of either the counter-party. If this information is not available (e.g. as there are multiple counter-parties) insert the value of collateral posted
 - d) Nature of derivative
 - e) the value of the instrument, which should be entered into the appropriate maturity profile of when the instrument crystallises
 - f) The reference of the associated debt instrument that is hedged by the derivate from Schedules B and C. In addition, provide the value, interest rate of the debt instrument, as well as the rationale for hedging.

- P		. • .	••••	
Net Deb	t		The	full c

The full definition of Net Debt is provided in the glossary document. In summary, Net Debt includes:

- Cash at bank
- Bank overdrafts
- Short term investments
- External borrowings (adjusted to reflect the ultimate liability in GBP sterling resulting from cross currency swaps relating to that debt instrument, excluding the

impact of fair value adjustments and accrued interest) Inter-company borrowings Short term loans to related parties (except where they have demonstrated the characteristics of being long term in nature, for example by repeated renewal) • Long term loans to related parties only where they can be justified as for the benefit of the regulated business and are not in the nature of a distribution • Hybrid financial instruments that have the characteristics of pseudo equity where the coupon is deductible in computing the charge to corporation tax • Debt incurred to fund 'Shadow' RAV (i.e. debt relating to expenditure under the TPCR3 or TPCR4 revenue driver incentive where the end of the incentive period has not been reached). Net Debt excludes: • Year end balances of fair value adjustments on derivatives in the Regulatory Accounts (except cross currency swaps) • Unamortised issue costs Fixed asset investments where not readily convertible to cash • Preference shares and hybrid financial instruments that do not have the characteristics of pseudo equity and the coupon is not deductible in computing the charge to corporation tax • Loans to related parties that do not meet the definition above • Inter-company debtors/creditors/working capital: where these can clearly be identified as such, they are excluded. However, if they cannot, because the licensee does not clear these balances on a regular basis, they will be treated as effective intercompany loans and included in net debt

1.6 Fixed asset disposals

Purpose and use by Ofgem	The purpose of this table is to collect information relating to fixed asset disposals.
Guidance on completing this worksheet	Rows 16 to 20: Enter details of disposals in the regulatory year by asset type for the company and individual licensees. For the avoidance of doubt, disposals should include assets transferred from the licensee to a company within the same group (i.e. a property

company).	
 Rows 24 to 30: insert details of any adjustments or reclassifications relating to disposals. 	

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None		

1.7 Tax computation

Purpose and use by Ofgem	This worksheet is used to show how the licensee arrives at the current tax charge. It provides the data in a consistent and comparable format across all licensees for the regulatory financial year to enable comparisons to be made. This and the CA pool table are used to monitor outturn against allowances and to inform the next price control.	
Guidance on completing this	This table should be completed in £m nominal	
worksheet	 This table must be prepared on the same basis as the licensee's corporation tax returns for each regulatory financial year ended 31 March and in accordance with extant tax legislation. 	
	Row 14: Enter the actual corporation tax rate applicable in the regulatory financial year.	
	 Rows 20 to 32: Enter any amounts of operating expenditure that, in accordance with tax legislation, is disallowed as a deduction in computing taxable profits. These costs must therefore be added back and must be the same as in the licensee's own tax computation or tax provision workings. 	
	 Row 21: The pensions charge in the Regulatory Accounts is the adjustment to eliminate all pension contributions provisions or accruals. The amount of cash pension contribution paid and deductible for tax purposes should be input under "Deduct:" (row 37). 	
	 Rows 36 to 45: Enter all deductions for tax purposes. 	
	Rows 49 to 56: Insert details of capital allowances.	
	 Rows 60 to 63: Enter other adjustments as required in the tax computation. 	
	 Rows 71 to 77: Insert details of statutory, not regulatory, tax losses. These will inform the offsetting amounts against any tax funding at future price reviews. Where consortium relief exists this should be reported here and not in the rows for add backs or deductions. 	

Specific definitions for this worksheet

Ν	one	

Guidance: Version 1.3

1.8 Tax pools

Purpose and use by Ofgem

This table is used to track the annual additions in the regulatory financial year and movements in capital allowances for the licensee.

It will capture the movements on capital allowances and reconcile the total to the licensee's own tax provision workings for its Regulatory Accounts and/or draft corporation tax computation.

It is also used to identify prior year adjustments arising in the individual capital allowance pools from the closing and settlement of open tax years.

Guidance on completing this worksheet

- This table should be completed in £m nominal
- This table must be prepared on the same basis as the licensee's corporation tax returns and in accordance with extant tax legislation. For entities which do not have a 31 March statutory year end it is not acceptable that additions to pools are derived by apportionment of the last actual corporation return additions over time. The additions should instead be ascertained from underlying records.
- Where the opening balances are different to those in the prior years' cost submission and revision amounts have been input, then reconciliation, explaining the reasons for the change, is to be provided in the commentary document.
- Row 16: enter the value of any Annual Investment Allowance (AIA) for the year.
- Rows 15, 19 and 31: the written down allowance rates for the AIA, General Pool and Special Rate Pool are Ofgem inputs.
- Rows 20, 32 and 43: These rows are to be used to show the opening balance of the capital allowance pool.
- Rows 21, 33 and 44: These rows are to be used for any revisions to numbers submitted in previous cost returns. Details of revisions that have been made and why they are necessary are required in the Commentary.
- Rows 23, 34 and 45: These rows are included for the additions to each pool within the year. Additions to the Special Rate pool should be manually inserted into row 34.
- Rows 24, 35 and 46: Enter the amount of capital contributions as a negative value into each pool within the year.

 Rows 25, 36 and 47: Insert the value of disposals into each pool within the year.
 Rows 27, 38, 49: Enter the value of annual writing down allowances claimed. Where any allowances are disclaimed in any year(s) an explanation must be provided in the Commentary.
 Row 52: Insert the value of fixed asset additions not qualifying for tax relief.

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None		

1.9 Tax allocations of spend

Purpose and use by Ofgem	The purpose of this table is to report the allocation of Totex spend to capital allowance pools for the licensee consistent with the numbers in the Regulatory Accounts for the year. It obtains an analysis of the licensee's tangible fixed asset additions and ensures allocation to the capital allowance pools on a consistent and comparable format across licensees. It enables monitoring and comparison of allocations to capital allowance pools across licensees, and across time, which will inform future price controls. This table must be prepared on the same basis as the licensee's corporation tax returns for each regulatory financial year ended 31 March and in accordance with extant tax legislation. For the avoidance of doubt, this worksheet does not include allocation of TIRG.
Guidance on completing this worksheet	Populate each of the yellow shaded cells in this worksheet with the value allocated to each tax pool category. Controllable operating expenditure not allocated to Capex should be shown in the box titled "revenue".
	The total expenditure should agree to the total Totex in the Totex PCFM table.
	For each category of ALC, ACO, AOC, ANC and ARC (and corresponding SOACO/ SOACO) there are input cells highlighted in yellow in columns G & H.
	Profiles are calculated automatically for each expenditure type in the bottom half of the sheet. The profiles are shown in percentages.

Specific	definitions	for this	worksheet
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1.10 Tax allocations CT 600

Purpose and use by Ofgem	The purpose of this table is to report the allocation of Totex spend to capital allowance pools for the licensee consistent with the CT600 tax return submitted. It obtains an analysis of the licensee's tangible fixed asset additions and ensures allocation to the capital allowance pools on a consistent and comparable format across Licensees. It enables monitoring and comparison of allocations to capital allowance pools across Licensees, and across time, which will inform future price controls.	
Guidance on completing this worksheet	 Row 12: Enter the closest regulatory year end to the accounting year end of used for the CT600 return (e.g for a 31/12/13 CT600 return, the regulatory year end would be 31/03/2014, enter 2014 in cell C12). 	
	 Rows 16 to 81: Allocate all expenditure that is chargeable for tax by actual Totex category in £m. In addition, allocate contributions received by Totex category. Note: there is no check to the Totex summary since the two are not necessarily aligned. The total additions by capital allowance pool should agree to the additions stated in the CT600. 	
	Rows 99 to 140: Profiles of tax pool allocations are automatically calculated for each expenditure type.	

Specific definitions for this worksheet

None	

1.11 Tax claw back

Purpose and use by Ofgem	This tables collates Net Debt and Net Interest information. This information will inform the calculation of the claw back of the tax benefit due to excess gearing as specified in RIIO-T1. Where companies have gearing levels in excess of that assumed in the PCFM, and also a higher level of interest than modelled, the value of this relevant interest as a tax shield is adjusted. Net Debt information is as stated in Table 1.5 with adjustments to calculate Net Debt as per the Regulatory definition.
Guidance on completing this	This table should be completed in £m nominal.

worksheet	 Rows 17 to 25: Insert details of all adjustments for borrowing that is not in accordance with the definition of Regulatory Net Debt.
	 Rows 31 to 38: Enter details of interest costs that relate to regulatory Net Debt, i.e. interest costs incurred on overdrafts, short term bank loans, commercial paper, long term bank loans, index linked bonds, other bonds, inter-company loans, finance Leases.
	• Rows 41 to 52: Enter adjusting items that reconcile "debt interest paid" (row 39) to total Interest Expense and Finance costs as per Income statement in Table 1.1.
	 Rows 58 to 61: Enter details of interest income that relate to regulatory Net Debt, i.e. interest income received for cash and cash equivalents, available for sale investments, external loans and receivables, inter Company Loans.
	 Rows 64 to 69: Enter adjusting items that reconcile "debt interest received" (row 62 to 69) to total interest income as per Income statement in Table 1.1.
	 Rows 75 to 85: Insert details of all adjustments for borrowing that is not in accordance with the definition of Regulatory Net Interest.

None

1.12 Financing requirements

Purpose and use by Ofgem	The purpose of this table is to inform consideration of the licensee's short term financial stability. It requires provision of a high-level cash flow for the succeeding two regulatory years and the financing requirements over the same period.	
Guidance on	This table should be completed in £m nominal.	
completing this worksheet	 Rows 14 to 22: Complete the cash flow forecast at the licensee level for the succeeding two regulatory years. 	
	 Rows 28 to 33: Enter details of forecast financing requirements to meet the cash flow forecast. 	
	 Row 37: Insert the value of any undrawn facilities for the licensee that is anticipated at the start of each succeeding regulatory year. 	
	 Rows 41 to 44: Enter the key assumptions the underlie the cash flow forecast (rows 14 to 22) and the financing requirements (rows 28 to 33) value available at the start of the current year. 	
	Should the licensee have concerns about refinancing, these should be expressed in the commentary, except to	

the extent that such issue have been separately notified to Ofgem.
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None

1.13 Pensions defined benefit scheme

Purpose and use by Ofgem	This table collects recent data relating to defined benefit (DB) pension scheme, obtained from pension scheme accounts and updated valuations. This information provides a view of scheme investment and funding strategies. The table collects information on actual pension contributions made by the licensee to repair the deficit; estimated movements in assets, liabilities and membership data.
Guidance on	All data must be entered in nominal prices each year.
completing this worksheet	Data is to be provided on the total DB scheme for which the licensee is a sponsoring employer.
	Section A Pensionable payments information Enter pensionable pay information before any reduction for salary sacrifice, the salary sacrifice element of pensionable pay (i.e. the amount of salary sacrificed by employees in exchange for an increase in the element of employer pension contributions) and employee and employer contribution data applicable to the licensee, rather than for the total DB scheme as a whole.
	Section B Pension deficit information
	Insert total scheme deficit repair payments (cash), and the attribution of the actual deficit repair payments between business units (inserting each business unit name) by sponsoring employers of the scheme.
	Section C Pension hedging and contingent asset costs directly paid by licensee:
	Insert details of the attribution between business units of contingent asset costs and other hedging instruments, where a proportion is paid directly by the licensee.
	Section D Scheme Membership
	Enter membership details for the scheme, by membership type and average age. This should be the licensee's best estimate of membership based on the latest available information from the scheme administration database or the latest available pension scheme accounts.

Section E Scheme deficit information

Enter net investment income received being the income received on scheme assets, net of investment management fees where it is deducted from investment income.

Enter the change in market value of investments, which is the change in the market value of a scheme's investments over a period of time where the approach used to assess the market value of an asset is the same as the approach used for the purposes of a triennial valuation.

Enter the amount of investment management expenses, being any scheme investment management expenses which are charged separately or have not been implicitly allowed for in the "Change in market value of investments" item or as a deduction from the "Investment income" item.

Provide the value and status of scheme assets. In column B, enter either "A", "B" or "C" to indicate whether this asset is generally assumed by the scheme to be 'return-seeking' assets, 'low-risk' assets and scheme assets specifically designed to match a proportion of the scheme's liabilities, respectively. In column E, provide the value of scheme assets in £m by class. The value should be fair value at the 31 March of the Regulatory reporting year under review.

Insert the scheme liabilities as at 31 March (row 118), which should be sourced from an updated valuation (used for internal purposes), co-terminus pension scheme accounts, and returns to the Pension Protection Fund or best estimate. The basis should be stated in the Commentary.

Enter the scheme's deficit funding for the Regulatory reporting year on a cash basis for the whole scheme.

Insert the value of pension related severance costs paid in the Regulatory reporting year by the scheme as a whole.

Specific definitions for this worksheet

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	None	

4. Instructions for completing the total expenditure worksheets

Chapter Summary

The purpose of this chapter is to provide information on the total expenditure worksheets by each TO. This is to enable Ofgem to effectively monitor the performance of the companies in relation to their business plans and the total expenditure baselines set in the Final Proposals.

Introduction

4.1. The purpose of the worksheets in this area is to report total expenditure. In the main these worksheets pull data from other areas of the RIGs.

Overview of worksheets

- 4.2. The worksheets included within this chapter are:
 - 2.1 Provisional Price Control Financial Model (PCFM) inputs
 - 2.2 Totex forecasts
 - 2.3 Published Totex
 - 2.4 Published Outputs
 - 2.5 Published Wider Works

2.1 Provisional Price Control Financial Model (PCFM) inputs

Purpose and use by Ofgem	The purpose of this table is to provide the Totex expenditure inputs to inform the Annual Iteration Process of the Price Control financial Model (PCFM). The data from this table will be used to inform the direction of actual Totex (in the sub categories as identified) to populate the PCFM for the reporting year.
Guidance on completing this worksheet	The table draws information from table 2.2 for the reporting year only.
	The table does not distinguish between base expenditure and expenditure incurred under uncertainty mechanisms as the capitalisation rate is the same.

Specific	definitions	for this	worksheet
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None	

2.2 Totex forecasts

Guidance on completing this worksheet The actual data for the reporting year table is self populated with information from the table 3.1 Summary of Cash Controllable Costs and Table 4.1 Capex Summary. The capex forecast also comes from Table 4.1. Tos should input their high level forecast for opex and non operational capex over the price control period as positive values broken down by the headings on the table. Values are to be reported in £m in the reporting year's prices, with the exception of 'Previous Year Submission' data, which is to be reported in 2009/10 prices. Tos should enter data from their previous year's submission under 'Previous Year Submission (£m, 2009/10 Prices)'. This should contain identical values to those calculated in cells S7:AH31 of the same sheet of the TO's previous year's submission. Allowances are auto-populated from the 'Allowances' sheet, which Ofgem will populate annually. The table automatically compares the current year actuals and forecasts with previous years and the final price control allowances in 2009/10 prices. Load and non load capex will include capital contributions.	Purpose and use by Ofgem	The purpose of this table is to collect a summary of total opex and capex data for the actual reporting year and high level forecasts for the whole of the price control period. This enables a comparison with previous years and the price control allowances.
	completing this	with information from the table 3.1 Summary of Cash Controllable Costs and Table 4.1 Capex Summary. The capex forecast also comes from Table 4.1. TOs should input their high level forecast for opex and non operational capex over the price control period as positive values broken down by the headings on the table. Values are to be reported in £m in the reporting year's prices, with the exception of 'Previous Year Submission' data, which is to be reported in 2009/10 prices. TOs should enter data from their previous year's submission under 'Previous Year Submission (£m, 2009/10 Prices)'. This should contain identical values to those calculated in cells \$7:AH31 of the same sheet of the TO's previous year's submission. Allowances are auto-populated from the 'Allowances' sheet, which Ofgem will populate annually. The table automatically compares the current year actuals and forecasts with previous years and the final price control allowances in 2009/10 prices.

Specific definitions for this worksheet

NI	
i None	

2.3 Published Totex

Purpose and use by	The purpose of this table is to replicate what the TO has
Ofgem	

	published on its website.
Guidance on completing this worksheet	Where possible these the cells on these tables are autopopulated from other RIGs tables.
	Data should be input as required in the yellow shaded cells.
	Licencess are required to publish these tables on their website by 30 th of September in each year of RIIO-T1. The data contained in these tables MUST agree with that published on the TO's website. However, they may choose to use different formatting in their published tables.

Specific definitions for this worksheet

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2.3 Published Outputs

Purpose and use by Ofgem	The purpose of this table is to replicate what the TO has published on its website.
Guidance on completing this worksheet	Where possible these the cells on these tables are autopopulated from other RIGs tables. Data should be input as required in the yellow shaded cells. Licencess are required to publish these tables on their website by 30 th of September in each year of RIIO-T1. The data contained in these tables MUST agree with that published on the TO's website. However, they may choose to use different formatting in their published tables.

Specific definitions for this worksheet

None	

2.3 Published Wider Works

Purpose and use by Ofgem	The purpose of this table is to replicate what the TO has published on its website.
Guidance on completing this worksheet	Where possible these the cells on these tables are auto- populated from other RIGs tables.
	Data should be input as required in the yellow shaded cells.

Licencess are required to publish these tables on their website by 30 th of September in each year of RIIO-T1. The data contained in these tables MUST agree with that published on the TO's website. However, they may choose to use different formatting in their published tables.

Specific definitions for	c definitions for this worksheet	
None		

5. Instructions for completing the operating expenditure worksheets

Chapter Summary

The purpose of this chapter is to inform the completion of the operating expenditure worksheets by each TO. This is to enable Ofgem to effectively monitor the performance of the companies in relation to their business plans and operating expenditure baselines set in the Final Proposals.

Introduction

- 5.1. The purpose of the worksheets in this area is to report operating costs (opex) information at various different levels to enable Ofgem to fully understand opex trends and performance. Certain large and significant areas of cost are broken down into greater detail so that we can understand the movements more easily.
- 5.2. Licensees should submit accurate (and where instructed) audited figures of their costs and revenues for the relevant period. Further guidance is provided below.
- 5.3. All costs are to be entered on a cash controllable basis (see Glossary). Cash controllable means exclusive of all provisions and all accruals and prepayments that are not incurred as part of the ordinary level of business.

Materiality

- 5.4. Where TOs are completing tables with costs <£0.1m it is not expected that all cells will be completed. TOs should either show the total in the cell labelled "Other" or enter the total in the cell that represents most of the costs.
- 5.5. Forecast data is **only** required at a total category level on the Totex Forecast table 2.2

Overview of worksheets

- 5.6. The worksheets included within this chapter are:
 - 3.1 Opex summary cash controllable costs
 - 3.2 Year on year movement in controllable costs
 - 3.3 Asset management opex

- 3.4 Business support group costs
- 3.5 Business support allocation
- 3.6 Business support supplementary detail
- 3.7 Operational training
- 3.8 Total transmission salary and FTE numbers
- 3.9 Analysis of excluded, consented, and de minimis services
- 3.10 Provisions
- 3.11 Related party transactions
- 3.12 Innovation Rollout Mechanism (IRM) expenditure
- 3.13 Network Innovation Allowance (NIA) expenditure
- 3.14 Network Innovation Competition (NIC) expenditure
- 3.15 Physical security opex

3.1 Opex summary – cash controllable costs

Purpose and use by Ofgem	The purpose of this table is to provide a breakdown of cash controllable costs into activities within business support, closely associated indirect and direct costs. The table also collects items outside of Totex including non controllable costs to come to the total operating costs.
Guidance on completing this worksheet	Cost data should be input on a gross cash controllable cost basis on Table 3.1b and the amount of capitalisation in Table 3.1c as indicated by the boxes shaded yellow. Costs should be input as positive values. Direct costs are drawn directly from Table 3.3. SO costs should be reported separately from TO costs where appropriate. Pension deficit payments relating to established schemes are not part of opex but should be recorded as memo items for both TO and SO (where applicable). Table 3.1a is the difference between tables 3.1b and 3.1c. This table
	represents the net business support and closely associated indirect costs and is automatically populated. Table 3.1a also required items outside of Totex to be added to come to a total operating costs figure that reconciles to the

regulatory accounts figure for operating costs
Table 3.1d: TOs are required to split the 'Related Party Margins Disallowed Total' by the opex categories in table 2.2. This is will then input table 2.1.
Table 3.1e: requires NGET only to provide a breakdown of EMR preparatory costs

Specific definitions for this worksheet	
	TO Closely Associated Indirect Costs
Operational IT and	IT equipment which is used exclusively in the real time
Telecoms	management of network assets, but which does not form part
	of those network assets
Project Management	Project Management from authorisation through preparation, construction and energisation to completion.
	 Includes: Overall responsibility for major project delivery. Determining resource requirements. Planning and requisitioning materials & equipment. Liaising with procurement for non-standard materials as required. Work and resource programming. Risk assessments of the overall project content. Preparation of work instructions. Issue of work to own staff and contractors. On-site supervision and technical guidance. Quality checks on work undertaken. Organising network access and co-ordination of outages. Organising and supervising (where appropriate) the undertaking of commission tests. Issuing completion certificates. Arranging energisation of assets. Cost control.
Network Design and Engineering	 Excludes: Any IT or property costs associated with Project Management. Any employees managing other indirect activities. Any design work relating to new connections new or replacement assets All processes and tasks involved in the: Strategic planning of the network at all voltages. Detailed engineering design of new connections, extensions and changes to the network at all voltages. Includes:
	 Strategic planning of the network – Relates to the tasks associated with the network in totality rather than

individual projects. Includes:

- Maintenance of network design data models.
- Development of long term development statements.
- o Capital planning for business plans and budgets.
- Network wide demand forecasting.
- Network Modelling associated with determination of Use of System charges.
- Strategic planning of the network in respect of new connections, load related network reinforcement and all aspects of the "non-load new and replacement asset installation" activity.
- General and Fault Level Reinforcement Relates to the tasks associated with the project specific network design and engineering of General and Fault Level Reinforcement projects.
- Demand Connections Relates to the tasks associated with the project specific network design and engineering of Demand Connections projects and enquiries.
- Other Network Investment Relates to the tasks associated with the project specific network design and engineering of all other aspects of Network Investment projects.

The tasks associated with General and Fault Level Reinforcement projects, Demand Connections projects & enquiries & enquiries and all other aspects of Network Investment projects including:

- Load forecasting.
- Network modelling.
- Network and engineering design of the network to accommodate new connections, specific changes in either demand or distributed generation and all aspects of the "non-load new and replacement asset installation" activity.
- Provision of connection charge quotations.
- Approval of network designs undertaken by other parties, such as independent connection providers and related parties.
- The surveying of a specific overhead line in order to identify the detailed work required to address an identified problem/issue.
- The determination of land profiles to select the routes and pole sizes for new or replacement lines.
- The surveying associated with new and existing operational sites in order to identify detailed work requirements.
- Network performance monitoring and evaluation of impact of salient policies.
- Planning new projects up to the point of authorisation.

Network Design and Engineering excludes:

The surveying, patrolling or inspection of system assets to

	 collect condition information. Any IT or property costs associated with network design & engineering.
System Mapping	 The activity of mapping of the network and operational premises of the network to geographical locations. Includes: Updating the geographical system maps with asset and locational information following the installation, removal or repositioning of system assets. The updating of Geographic Systems (GIS) records following Ordnance Survey mapping rebasing upgrades. Responding to the New Roads and Street Works Act NRSWA notices sent to the Company by other parties. Ordnance survey licence fees. Excludes: Clerical support and admin associated with New Roads and
Engineering	 Street Works Act (NRSWA). updating the network control diagram onsite collection of asset and locational information where this task is undertaken with the installation of the asset which is part of the associated direct activity: IT & Property costs associated with System Mapping activity Engineering Management & Clerical Support
Management and Clerical Support	The office-based activities of engineering and clerical support staff (ie depot clerical staff, managers, work planners, etc) managing or assisting employees undertaking direct activities and Wayleave Administration.
	 Includes: Strategic Network Plan Development and implementation: Managing the delivery organisational structure to achieve the long and short term company goals. Agreeing resource requirements (own employees, contractors, finances and outcome targets). Managing the allocation and distribution of delivery resources to achieve plans. Managing key corporate policies and standards for investment/ service delivery. Leading the management team for service delivery. Monitoring the achievement of plans. Overseeing the management of teams with responsibility for service delivery.
	 Identification and implementation of improvement initiatives: Redesign of business processes Customer service improvements
	 Work Planning, Budgeting, Allocation and Control: Monitoring delivery of major works

- Monitoring fault activity.
- Monitoring budgets of Inspections and maintenance, faults and major works.
- Setting and agreeing performance targets, monitoring actual performance.
- Reporting and analysis of Key Performance Indicators ("KPIs").
- Line management of staff undertaking direct activity work:
 - Standards of performance, disciplinary and sickness absence procedures.
 - Monitoring absence, back-to-work-interviews and welfare visits.
 - Establishing day to day work plans.
 - Managing the allocation tasks to achieve the delivery of operational and capital plans.
 - Scheduling and monitoring the achievement of work jobs.
 - Managing budget.
 - Ensuring work activity adheres to company technical and health & safety requirements.
- Mobile generation Management:
 - o Managing the use of mobile generation.
 - Managing and scheduling the maintenance of mobile generation.
- Operational Performance Management:
 - Health and Safety checks on work and personnel
 - Compliance checks on staff and contractors work carried out
 - Site safety inspections
 - Providing safety advise to cable contractors and others (to help prevent damage)
 - Investigation, report and corrective action following an accident or environmental incident
 - Authorisation of team members for operational and non operational duties
 - Operational safety checks
- Providing safety advice to persons working in proximity to network assets.
- Streetworks admin: Customer Funded funded:
 - Processing of NRSWA notifications.
 - Processing the payment of notification penalties (but not the cost of the penalties).
 - Processing permit applications (but not the costs of the permits).
 - Processing the payment of permit penalties (but not the cost of the penalties).
 - Processing payment of inspection penalties (but not the costs of the penalties.

- Liaising with local authorities.
- Liaising with contractors and direct labour force to undertake remedial works following inspections (but not the cost of the remedial works).
- Processing of congestion charges payments (but not the cost of the payments).
- Processing of lane rentals payments (but not the cost of the payments).
- Processing of overstay fines (but not the cost of the fines).
- o Updating the Street Gazetteer.

• Wayleave Payments:

- Annual payments made in advance to the owner and/or occupier to cover the financial impact of having equipment on their land.
- Wayleaves and Easements/Servitudes: Admin Costs:
 - Obtaining, managing and administering Wayleave, substation rents, easements and servitudes.
 - Negotiating new Wayleaves.
 - Managing Wayleave terminations.
 - Administration of existing Wayleaves including the preparation of payments.
 - Negotiation conversions from Wayleave arrangements to permanent easement/ Servitudes, substation rents and Wayleave payments.

• Clerical Support:

- Updating plant and overhead line support asset inventory databases following asset commissioning and decommissioning.
- Updating plant and overhead line support asset condition data following inspection and maintenance.
- Dealing with verbal and written enquires for new connections, or faults.
- Programming of minor works.
- Issuing of work instructions.
- o Preparation of quotations for minor works.
- Sending quotations to customers.
- Customer liaison.
- Liaising with contractors.
- Preparing plans, schematics, notices, materials schedules and work instructions.
- Preparing shutdown notices.
- Environmental notifications.
- Clerical support for staff answering verbal and written enquiries regarding faults, liaising with contractors and other stakeholders.

Excludes:

Any Employees managing indirect activities (eg logistics

	manager) (include under the relevant indirect activity heading).
	Design work relating to new connections new or
	replacement assets.Responding to NRSWA notices sent to the Company by
	other parties (include under Systems Mapping).
	Maintenance of mobile generation plant (include under
	Vehicles and Transport).
	Any employees engaged in maintaining the financial asset register.
	register. • Idle, down and sick time of direct field staff (include with
	their normal direct time in the appropriate direct activity).
	IT or property costs associated with Engineering
	Management & Clerical Support.
	Apprentices undertaking classroom training (include under Operational training and workforce renewal)
	Time of employees attending training (include as labour)
	costs under the relevant activity).
	Training courses and training centre costs for staff relating
	to working on system assets (include under operational training and workforce renewal).
	 Engineering and health and safety training, courses for
	staff involved in indirect activities (include under
	operational training and workforce renewal).
	Updating of underground cable and overhead line asset data has a (include under Custom Magning)
	data bases (include under System Mapping).Updating financial asset register (Finance & regulation).
	Compliance checks on staff and contractors' work carried
	out.
	Site safety inspections.
	Investigation, report and corrective action following an accident or environmental incident.
	Authorisation of team members for operational and non-
	operational duties.
	Operational field safety checks.
	Time of employees attending training (include as labour cost under the relevant activity of that employee).
	 Purchase of equipment (include under non-operational
	capex).
	Training, courses and training centre costs for staff
	relating to working on system assets (include under
	operational training and workforce renewal).
Network Policy (incl.	All processes and tasks involved in the development and
R&D)	review of environmental, technical and engineering policies,
	and including research and development.
	Includes:
	Evaluating the impact of changes in relevant legislation.
	Development, regular review and updating of asset risk
	management policies, such as:
	o asset maintenance policy

	 asset inspection policy technical standards and specifications team plant, equipment and component specifications vegetation management policy asset replacement policy network design and protection policy. Analysis and interpretation of asset condition data. Development, regular review and updating of environmental policy. Research and development (including Fees paid to research and development organisations).
	 Excludes: Any of the IT or Property costs associated with Network Policy. Excludes IFI related research and development.
Health Safety and Environment	The activity of promoting and maintaining health and safety of employees, contractors, customers and the public.
	 Includes: Developing the company's overall health and safety policy. Establishing procedures to comply with best practice for health and safety. Maintenance of records to show compliance with Factory and Health and Safety at Work Acts. Providing advice on security matters both for property and personnel and provision of advice on fire prevention. Excludes: Health & Safety checks on work and personnel such as: compliance checks on staff and contractors' work carried out site safety inspections
Operational Training	Includes operational training and graduate trainees and

apprentices.

Includes training Workforce Renewal new recruit, Operational Upskilling and Operational Refresher Training.

Operational Upskilling - covers all training (whether classroom based or on-the-job) where employee's skill level is increased in order to undertake activities requiring a higher skill level or to undertake activities requiring a different skill set (eg multiskilling or redeployment) or the undertake activities via more efficient / effective processes. (Does not cover, eg, routine operational refreshers, and safety briefings, non-operational training courses eg MS Excel, training for CPD purposes once qualified eg accountant).

Apprentices are engaged under approved apprentice's schemes. Trainees are employed under a formal training programme.

Includes:

- Classroom training.
- On the job training.
- Trainer and course material/running costs (classroom training).
- Training admin.
- Recruitment and external advertising costs for trainees/apprentices.
- Salaries of apprentices and trainees in full time continuous training up to the point they become fully engaged in operational activities.
- Costs of staff that organise and provide operational training and maintain employees training records.

Excludes:

- HSE costs (include under Health, Safety & Environment).
- IT & Property management costs associated with Ops Training and Training Centres (include under IT & Property costs respectively).

Stores and Logistics

The activity of managing and operating stores.

Includes:

- Delivery costs of materials or stock to stores.
- Labour and transport costs for the delivery of materials or stock from a centralised store to a satellite store/final location (and vice versa), taking into account the stock management policies.
- Monitoring stock levels.
- Quality testing of materials held in stores.

Excludes:

• Costs of oil or other insulation medium (report under the activity for which it is used, eq maintenance, faults.

	 Any of the IT systems associated with stores/logistics (include under IT & Telecoms). Any property management and maintenance costs of depots/stores locations (include under property management). Vehicles and Transport - the activity of managing, operating and maintaining the commercial fleet and mobile plant (include under Vehicles and Transport).
Vehicles and Transport	 The activity of managing, operating and maintaining the commercial fleet and mobile plant utilised by the Network or any other related party for the purposes of providing services to the Network. Includes: Lease costs associated with the vehicle fleet and mobile plant. Maintenance costs of the vehicle fleet and mobile plant, including mobile generation. Cost of accident repairs to business' own vehicles whether covered by insurance or not and the cost recovery where recovered by insurance. Fuel costs of the vehicle fleet and mobile plant. Excludes: Direct field staff time spent on utilising the vehicles for a
	 direct field stail time spent on dringing the venicles for a direct cost activity (include under direct cost activity). IT & Property costs associated with vehicle management. Purchases of vehicles, mobile plant and equipment (include under non-op capex). Cost of providing company cars to employees which are benefits in kind (include as labour cost under the relevant activity of that employee.
Market Facilitation	 This covers the following activities: Network code governance and development. Proposing and managing industry code modifications. Generation and demand forecasting. Information provision to the industry. Calculation and implementation of Transmission charges.
Network Planning	 This covers the following activities: Asset assurance and management of the asset registers. Business expert input into IT system development. Performance monitoring and improvement. Co-ordination and completion of benchmarking activities. Control Centre - Operational management and control of the network Outage planning and management Real time control and monitoring Dispatch Major incidents and emergency planning

	SO Direct Costs
Planning	Long term and short term planning
Real Time	Control room day to day operations
Operations	
Operational Support	post event analysis and forecasting, control room
	scheduling and data analysis
IS Business	support for capital works programmes
Resource	
Market Facilitation	 Network code governance and development.
	 Proposing and managing industry code
	modifications.
	 Generation and demand forecasting.
	 Information provision to the industry.
Engineering Support	
EMR	Electricity Market Reform

3.2 Year on year movement in controllable costs

Purpose and use by Ofgem	The purpose of this table is to enable licensees to explain the reasons for increases and decreases in costs year on year of $\pounds 0.5$ m or more (these are the net increases and decreases year on year in table 3.1a).
Guidance on completing this worksheet	Licensees should fill in the reasons for changes in costs in the boxes shaded in yellow. The table should be completed to clearly explain the year on year movements, additional explanations can be provided in the commentary if required. All exceptions items should be clearly identified

Specific definitions for this worksheet

None	
INOTIC	

3.3 Asset management opex

Purpose and use by Ofgem	The purpose of this worksheet is to shows the amount of cash controllable operating costs spent on fault repairs, planned inspections and maintenance, vegetation management, operational property management, BT 21 CN teleprotection and offshore transmission project,
Guidance on completing this worksheet	"Fault Repairs" and "Planned Inspections and Maintenance" are defined in the Glossary.
	The sub-totals detailed in cells E10 to E15 should agree to the opex summary table 3.1.

The main items included within "other" should be identified in the cells highlighted in yellow.
, , , , , , , , , , , , , , , , , , ,

Fault Repairs	See glossary definition
Planned Inspection	See glossary definition
and Maintenance	
Vegetation	The activity of physically felling or trimming vegetation
Mangement	
Operational Property	Premises which contain network assets and are not
Management	maintained for accommodating people eg Substations, Boiler
	Stations, Holder Stations, Compressor Stations, Govenor
	Houses etc.
BT 21 CN	Opex costs incurred as a result of the BT21CN transition.
Teleprotection	
Offshore	Costs incurred from all licensee activities relating to the
Transmission Project	connection and integration of offshore projects to the
	licensees onshore network.

3.4 Business support – group costs

Purpose and use by Ofgem	The purpose of this table is to provide net and gross cash controllable cost analysis of business support costs that are charged to the UK regulated network businesses (and to non regulated entities where appropriate). These tables show non-operational costs only. The costs captured on this table include both those incurred directly by the networks and those incurred at group level and allocated to the individual networks.
Guidance on completing this worksheet	This table must be completed on a group basis and split by form of control as appropriate. Group net cash controllable cost rows input to table '3.5 Business support – allocation' for both transmission and gas distribution. Group net cash controllable costs should be split into the specified categories (net staff costs, materials, etc.) for each activity. Group gross cash controllable costs for each
	activity are not further split by category. This table is to be completed by all licensees in every network submission. All licensees must complete column G ('group total') and at least one column from H to M. Each licensee must detail group costs, in columns H to M, by as many forms of control as they have access to the data. Any 'group' costs not detailed in columns H to M or under 'external customers' should be included under 'other group'. Please note that the

definition of 'group' may vary between companies (see definition below).

For single network licensees who do not receive any allocated costs from parent company or larger group then costs must be entered under group total with activity totals entered in the relevant column H to M.

For multiple network licensees, while the values in each submission under 'group total' must be the same, the submissions may have different columns H to M completed.

Excludes: IT equipment which is used exclusively in the real time management of network assets but which does not form part of those network assets. Any of the property costs associated with IT & Telecoms (include under Property Management), except where the cost of specific IT environmental control systems can be distinguished from other property costs. The activity of managing, providing and maintaining non-**Property** management operational premises i.e. premises used by people such as stores, offices and depots. This should include costs such as rent, rates (business), and utilities costs including electricity, gas and water, maintenance/repair costs of premises and also should include the provision of the facilities / property services such as reception, security, access, catering, mailroom, cleaning and booking conferences. The costs of property surveyors should also be included here. Includes: Stores, depots, offices (including training centre buildings & arounds). Rent paid on non-operational premises. Rates and taxes payable on non-operational premises. Utilities including electricity, gas and water (supply and sewerage). Inspection and maintenance costs of non-operational premises. Facilities management costs including security and reception. Training centre buildings & grounds. Control rooms and data centres. Excludes: Any costs relating to operational property (ie premises which contain network assets and are not maintained for accommodating people e.g. Substations, Boiler Stations, Holder Stations, Compressor Stations, Governor House etc (include under operational property). Any IT systems associated with property management (include under IT & Telecoms). Depreciation and profit/loss on Fixed Assets Relocation costs to or from non-operational premises. Network rates. HR & non-HR operational training This would include provisions of the HR function ie the full range of professional activity for an individual's career path from recruitment to retirement and post retirement where applicable, e.g. management and administration of pension payments (NB PPF scheme administration costs are excluded) and from related professional advice to directly resolving grievances for staff.

Includes:

- Costs of payroll and pension's management and operation.
- Facilitating staff performance, development and reviews.
- Industrial and employee relations including HR strategy, policies and procedures.
- Monitoring equal employment opportunities.
- HR advice to management, succession planning and also retentions and rewards.

Excludes:

- Pension Scheme Administration and PPF levy costs
- Pension deficit repair payments relating to the "established deficit" and for the avoidance of doubt, all unfunded early retirement deficiency costs (ERDC) post 1 April 2004

Non-Operational Training

Facilitating and operating training courses of a non-technical nature for office-based staff.

Includes

- Staff who organise and provide non-operational training and maintain employees training records.
- Cost of running the non-operational training costs e.g. course fees.
- Leadership development training.

Excludes:

- Any operational training costs
- Non-operational costs associated with formal training and apprentice programmes (included under operational training)
- Time of employees attending training (include as labour costs under the relevant activity for non-operational).
- HSE costs (include under Closely Associated Indirect costs).
- IT systems associated with HR & Payroll (include under IT & Telecoms).
- IT & Property management costs associated with Non-Ops Training (include under IT & Property costs respectively).

Finance, audit & regulation

Performing the statutory, regulatory and internal management cost and performance reporting requirements and customary financial and regulatory compliance activities for the network.

Includes:

- Process of payments and receipts.
- Time sheet evaluation where not part of the payroll process.
- Financial & risk management e.g. credit & exposure management.
- Financial planning, forecasting & strategy.

	Financial accounting.
	Management accounting.
	Investment accounting.
	Treasury management.
	Transportation income accounting.
	Pricing.
	Statutory & regulatory reporting. Tay compliance & management.
	Tax compliance & management. Internal audit & management of the malationahia with
	 Internal audit & management of the relationship with external audit function.
	External audit fees.
	Cost of regulatory department.
	Excludes:
	Insurance costs (include under Insurance).
	 Any of the IT systems associated with finance, audit and regulation (include under IT & Telecoms).
Insurance	Support and expertise to develop the business risk profile, managing the claims process and provision of information and understanding to the business in relation to insurable and uninsurable risks.
	Includes
	Insurance premiums
	Insurance premium tax
	Insurance contract negotiating and monitoring
	Insurance claim processing
	Insurance risk management
	Payments relating to uninsured claims
	Costs of in house insurance team
	Brokers fees

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Procurement	Responsible for the procurement of goods & services in the support of the business operations, through the management of procurement contracts with suppliers.
	Includes:
	 The cost of carrying out market analysis. Identifying potential suppliers, undertaking background review, negotiating contracts, purchase order fulfilment 8 monitoring supplier performance. Setting up and maintaining vendor accounts within the accounting system, and maintaining e-procurement
	 channels. Setting procurement guidelines and monitor adherence to the guidelines. Excludes:
	 Any of the IT systems associated with procurement (include under IT & Telecoms). Stores & Logistics - The activity of managing and operating stores (include under Closely Associated Indire costs for transmission and record in separate stores and
	 logistics category in table 3.1). Vehicles and Transport - the activity of managing, operating and maintaining the commercial fleet and mobile plant (include under Closely Associated Indirect costs).
CEO & group management	 Includes: Communications - communication within the UK businesses, internal communications, external communications, media relations, issues management, regional communications, community relations, community awareness, branding, events management Group Strategy- function has the responsibility of evaluating the strategic options of the Group. Legal / Risk and Compliance/ Company Secretary - legal department, the management corporate governance for all companies to ensure they comply with legislation, regulations and best practice. Corporate Responsibility and investor relations - corporate responsibility and interaction with institutional equity investors and market analysts, management of rating agencies also advertising, charity and sponsorship arrangements. Board Members and Other - staff and other costs of Boarmembers and other corporate costs not fitting into other

Excludes:

- Insurance management.
- Legal advice relating to way leaves/servitudes/easements.

	Group costs relating to specific activities e.g. HR, Finance, Audit, Regulation, Taxation, HSE, Insurance, etc (include under the specific cost category).
	Other indirect activity definitions:
Training & apprentices	Training and apprentices covers the cost of operational training and the cost of training any employees engaged on approved formal training or apprentice programmes (either operational or non-operational).
	Excludes:any non-operational training costs falling under 'HR and non-operational training'

Common definitions for	pr business support worksheets (3.4, 3.5, 3.6)
Group	For these purposes (tables 3.4, 3.5, 3.6) a group consists of a parent company and its participating interests (participating interest as defined in transmission and gas distribution licenses).
	Definition of 'group' for this purpose may be different for different companies depending on the levels at which they can realistically provide the data. Group should as minimum include all UK regulated network companies.
National Grid	<u>Licensee group definitions for reporting</u> To include all UK regulated networks plus all other group companies
NGN	Single UK regulated network
SGN	Limited to SGN's UK regulated networks
SHE Transmission	All SSE companies in receipt of services from SSE Services Ltd
SPTL	To include all UK regulated networks plus all other group companies, where costs are allocated to regulated network
WWU	and non regulated businesses Single UK regulated network
Licensee	As defined in transmission or gas distribution license
Other costs	Any costs not falling under the above categories plus any cost
Other costs	under the above categories cumulatively less than £0.1m in value. Where individual categories are less than £0.1m but the cumulative total of these categories are greater than
	£0.1m then the costs should be allocated to the most
	appropriate category/categories so that all category costs are greater than £0.1m.
Specific definitions for this worksheet	
ETO	Electricity transmission owner licensees
ESO	Electricity system operator licensee (NGET SO)
GTO	Gas transmission owner licensee (NGGT TO)
GSO	Gas system operator licensee (NGGT SO)
GSO ED	Gas system operator licensee (NGGT SO) Electricity distribution licensees

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Other group	Depending on definition of group. Other group may include other UK regulated networks (where not already specifically detailed) plus non regulated group companies.
External customers	Other external customers charged out of group cost base.

3.5 Business support – allocation

Purpose and use by Ofgem	The purpose of this table is to trace the group net cash controllable costs (from table 3.4) to individual activity allocated net cash controllable costs including any cost transfers to/from direct activity functions of the company's organisation. This table allows Ofgem to reconcile costs allocations from the various forms of control to the business support activity definitions given above.
Guidance on completing this worksheet	Where costs are identified as 'plus' then these should be entered as positive values. Where cost adjustments are identified as 'less' then these should be entered as negative values.
	Where a group allocates its costs to UK regulated businesses and non regulated entities from the same 'Group net cash controllable costs' as submitted on table 3.4 without any further transfers between business support activities or to/from direct activities then no entries are required in this table.

Specific definitions for this worksheet

Other adjustments	Any adjustments not falling under the defined categories.
(free form)	These should be explained in commentary.

3.6 Business support – supplementary detail

Purpose and use by Ofgem	The purpose of this table is to collect additional information required to effectively monitor and understand business support cost drivers and allocations and to facilitate comparison between network sectors and against other industries.
Guidance on completing this worksheet	Costs should be input as positive values Unless stated otherwise all costs are gross (i.e. before capitalisation). The total "Group gross cash controllable cost" on this table

should be the same as on table 3.4

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	IT & Telecoms
Application	Costs associated with the development of applications before
Development	they are put into the production
Application	The costs of maintaining and supporting applications that are
Maintenance &	in production. Includes minor enhancements and bug fixes
Support	
Desktop services	The costs involved in supporting desktop hardware and software
Application server support	Costs involved in maintaining computer servers
Storage	Costs involved in supporting the IT storage other than in data centres, including cloud storage costs?
Network (LAN & WAN)	The costs involved in implementing and supporting the computer networks, Local Area Network (LAN) and Wide Area Network (WAN)
Business Telecoms	The cost involved in supporting the network of business telephone, mobile and desk phones. It does not include the costs of maintaining the operational telephony linking network assets
Management Services	IT directors and other costs of running the IT function not covered by other areas
Data centres	A facility used to house computer systems and associated
Data centres	components, such as telecommunications and storage systems, redundant/backup power supplies and redundant
	data communications connections.
End users	 N.B. typically end users' relates to individuals (FTEs) and not devices, except where individuals share devices. A single individual using multiple devices counts as one end user. The number of end-users will never exceed the FTE count of employees plus contractors plus other users. An end user is defined as an individual (typically either an employee or contractor) that spends at least 10%
	of his or her time using a network company
	provided, funded, supported computing device that is part of the network company's IT infrastructure (ie desktops, laptops, hand held devices, etc.) to support his or her business functions. The user must have direct access to internal applications/systems to execute specific transactions on behalf of the network company. Examples: (i) full time employee, working 40 hours per week uses several devices for a total 20 hours per week – counts as one end user, (ii) a part-time employee working 20 hrs per week uses several devices for a total of 2 hours per week – counts as 0.5 end users, (iii) a contractor engaged 20 hours per week on network company business using his or her own devices for 10 hours and network company devices for one hour – counts as zero end users. • The end user count does NOT include casual users of

	 voice response systems, mobile phones, and pagers. The end user MAY include some users that are not employees or contractors (ie agents/brokers/dealers/distributors/supply chain partners), but only if they are using a computing device provided, funded, and supported by the network company at least 10% of their time, and use network company applications/systems to execute specific business transactions. These 'other' users must be named users on the network company systems and use the network company's IT support organisation. Smart phone users should only be counted if the user uses the smart phone as the primary device to access internal applications and does this for at least 10% of his or her time. Smart phone users are NOT to be counted if the phone is only used for voice calls and email. Only count end users once even if they have multiple devices. Shared devices used in multiple labour shifts or for groups of people should be counted as a single end user per shift. Do not count each user separately since the device is shared. Network printers should not be counted as a workstation. Example: there are 4 employees using one PC at a workstation. This would count as 1 end user. If the scenario occurs
	across 3 shifts, this should be counted as 3 end users.
	Property Management
Office	A property is defined as an office if its primary function is to accommodate office based staff during their business hours.
Depot	A building other than an office used for operational purposes.
Training Centre	A property is defined as a training centre if its primary function is to accommodate staff while on operational or non-operational training courses or programmes.
No. of buildings	For multi-use buildings then the number of buildings should be calculated on a pro-rata basis based on floor space in exclusive use, with shared floor space (e.g. staff canteens) split pro rata between office space and training centres. For example a building that is 30% office space 20% training centre, 15% depot, and 35% shared (e.g. staff canteen, toilets) would count as 51% (30% + 35%*(30/50)) of an office building (30/(30+20+15), 34% training centre and 20% depot. Where a site contains multiple buildings/facilities then the site should be counted as one building.
Net internal area (NetIA), m ²	As per the Valuation Office Agency ³ definition (as at 19 March 2013):

³ Valuation Office Agency definition: http://www.voa.gov.uk/corporate/Publications/comp.html, accessed 19 March 2013

	Broadly speaking the usable area within a building measured to the face of the internal finish of perimeter or party walls ignoring skirting boards and taking each floor into account. NetIA will include: Perimeter skirting, moulding, or trunking Kitchens Any built in units or cupboards occupying useable
	 areas (subject to height exclusion below) Partition walls or similar dividing elements Open circulation areas and entrance halls, corridors and atria
	NetIA will exclude:
	 Toilets and associated lobbies (but extra measurements may be required for shops where they are either in excess of normal staff requirements considering the type and size of shop) or it is apparent additional toilets have been installed) Cleaners' cupboards
	 Lift rooms, boiler rooms, tank rooms, fuel stores and plant rooms other than those of a trade process nature Stairwells, lift wells, those parts of entrance halls, atria, landings and balconies used in common or for
	 the purpose of essential access Corridors and other circulation areas where used in common with other occupiers or of a permanent essential nature Areas under the control of service or other external
	 authorities Internal structural walls, walls (whether structural or not) enclosing excluded areas, columns, piers, chimney breasts, other projections, vertical ducts etc The space occupied by permanent air conditioning,
	heating or cooling apparatus and ducting which renders the space substantially unusable having regard to the purpose for which it is intended • Areas with headroom of less than 1.5m (this area
	should be shown separately but excluded) ⁴ • Car parking areas (this area should be shown separately and the number of spaces noted)
Owned (property)	Any premises used by the regulated businesses where the group owns the freehold or the leasehold for the premises.
Leased (property)	Any premises where the group does not own the freehold or leasehold, including where the regulated businesses pay rent.

 4 Note: this figure is given in error as 15m in the Valuation Office definition of 19 March 2013

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	Where rent is paid to a related party then ownership of the
	premises and the leasing arrangements should be explained.
	Insurance department costs
Insurance premiums	Cost of insurance premiums including insurance premium tax
	and brokers fees
Other insurance	All insurance department costs except for insurance premiums
costs	and brokers fees
	Insurance premiums (* indicates definition based on ABI advice doc. ⁵)
Loss or damage due	Insurances that protect against loss or damage caused to
to adverse events*	licensee's property or trade by adverse events
Property -	Buildings and contents including fire, lightning, explosion,
buildings and	riot, malicious damage, storm, flood, impact by aircraft, road
contents*	and rail vehicles, escape of water from tanks or pipes and
	sprinkler leakage.
Engineering	Engineering insurance cover against electrical or mechanical
failure*	breakdown for machinery, including computers.
Crime and theft	Includes:
	Crime
	Theft
	Money
Goods in transit*	Loss or damage of machinery, materials etc. while in
	licensees own vehicles or when sent by carrier.
	Includes:
	Marine cargo
Business	Cover for loss of income and extra expenses, including any
interruption*	increased working costs and extra accountants' fees incurred,
'	resulting from damage to a licensee's property or assets.
Trade credit	Cover against the risk of bad debt due to the insolvency or
insurance*	default of trade debtors.
Motor vehicles*	Cover against third party legal liability for injury to others and
	damage to their property arising from the use of vehicles on
	the road and against damage to licensee's vehicles.
Legal expenses*	Cover against the cost of taking or defending legal action
	including legal costs such as solicitors' fees and expenses, the
	cost of barristers and expert witnesses, and court costs and
	opponent's costs if awarded against the licensee in civil cases.
Network assets	Includes:
	Property (towers & poles, etc.)
Terrorism and	Cover against loss due to deliberate acts of terrorism or
sabotage	sabotage.
Aviation	Cover against losses associated with ownership and operation
, ((1333))	of aircraft
Other	Includes:
Other	Business services allocation
Third party legal	Cover against licensee's legal liabilities in the event of some
liability*	aspect of the licensees business causing damage or harm to a
nability	· ·
	third party or their property

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⁵ <u>http://www.abi.org.uk/Information/Business/15310.pdf</u>, accessed 19 March 2013

Employers' liability*	Cover against legal liability for injury, disease or death to employees sustained by them and arising from their employment. Employees for this purpose may include, in addition to those under a contract of employment, apprentices and other trainees, agency staff, and contractors.
Public and product liability and professional indemnity*	Cover against legal liability to pay damages to members of the public for death, bodily injury or damage to their property which occurs as a result of a licensee's business activities.
Environmental impairment liability	Cover against losses and liability arising from damage to property due to pollution or environmental damaged caused a network company's regulated business operations
Employee*	Cover that protects a network company and its employees against the consequences of serious illness, injury or death, and the effects these events could have on the network company's employees, on their families, and on the network company's business.
Personal accident and sickness insurance*	Cover paid for, fully or in part, by a network company that provides income to an employee to compensate for the loss of earnings through incapacity resulting in inability to work. Where the cost of cover is shared between network company and employee, or where the network company recovers part of the cost from employees, then only the network company's net contribution should be reported.
Income protection insurance*	Cover paid for, fully or in part, by a network company that provides income to an employee to compensate for the loss of earnings through incapacity resulting in inability to work. Where the cost of cover is shared between network company and employee then the network company's contribution should be reported. Where the cost of cover is shared between network company and employee, or where the network company recovers part of the cost from employees, then only the network company's net contribution should be reported.
Private medical insurance*	Private medical cover paid for, fully or in part, by a network company. Where the cost of cover is shared between network company and employee, or where the network company recovers part of the cost from employees, then only the network company's net contribution should be reported.
Life assurance*	Cover paid for, fully or in part, by a network company that provides financial security for employees' dependants and protect the profitability of the business upon death of an employee. Where the cost of cover is shared between network company and employee, or where the network company recovers part of the cost from employees, then only the network company's net contribution should be reported.
Travel	Includes: Overseas travel Personal accident/travel
Directors & officers	Includes: Primary and excess directors' and officers' liability
Employment	Cover against claims made for alleged acts of discrimination,
practice liability	harassment or inappropriate employment conduct.

Pension trustees indemnity (recharged to pensions)	Cover that protects a network company and /or its pension funds and/or its employees and trustees against claims made by third parties for breach of trust, maladministration and wrongful acts arising from the actions of the trustees to the pension funds.
Self retained claims costs (below deductable)	The amount of any claim which falls below policy excesses or deductibles where the cost is paid by the network company and not the insurers.
Brokers fees	The fee charged by an insurance broker for arranging insurance cover
	Captive insurance
Captive insurance	Insurance cover provided by an insurance entity that is a related party
Premiums invoiced	The amount charged to the policy holders for insurance cover provided
GBRA/P&L	The GBRA (General Business Revenue Account) details the insurance transactions and P & L (Profit and Loss Account) details any non-insurance related income and expenses of the company.
Total Written Premiums	The total amount charged for the insurance cover provided
Reinsurance Costs	The amount paid out to third party reinsurance companies for reinsurance cover
Net premium	The premium income after the deduction of reinsurance costs
Claims Costs	The amounts paid out as insurance claims and claims related fees
Underwriting Expenses	The amounts paid out in expenses required to conduct the insurance business (broker fees, actuarial fees)
Underwriting Profit	The insurance profit/(loss) for the year
Investment Income	The amount generated from the investment of the company's assets
Operating Expenses	The amount paid for the general running expenses of the company
Retained Profit / (Loss)	The profit or loss generated by the company for the year
Unrealised Investment Gain	The amount arising from an increase in market value of assets available for sale
Total Movement in SH Funds	The sum of the retained profit/(loss) and the unrealised investment gain/(loss)
UK Tax Adjustment	The amount charged to the group for UK taxation
Profit After Taxation	The profit or loss generated for the year once taxation has been deducted
Total Written Premiums	The total amount charged for the insurance cover provided
Balance Sheet	The statement of the financial position of the company at a point in time
Assets	The resources held by the company that have an economic value
Non-insurance	The amounts owed to the general (non-insurance) creditors of

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Liabilities	the company
Gross Loss	The amounts expected to be paid out in insurance claims
Reserves	relating to current and past policy periods
Reinsurance	The amounts recoverable from reinsurers under reinsurance
Assets	contracts purchased
Shareholders'	The value of the company and amount attributable to the
Funds	shareholders of the company
Annual Retained	The sum of the maximum exposure on all insurance policies
Risk	issued in the year
Excess Capital	Shareholders' funds less annual retained risk
Adequacy	
Loss Ratio	The ratio of expenses to net premium income
	CEO and group management
Communications	Communication within the UK businesses, internal
	communications, external communications, media relations,
	issues management, regional communications, community
	relations, events management
Group strategy and	Function has the responsibility of evaluating the strategic
group corporate	options of the Group
affairs	options of the oroup
Legal / Comp	Legal department, the management corporate governance for
Secretariat	all companies to ensure they comply with legislation,
Secretariat	regulations and best practice.
Corporate	Corporate responsibility and interaction with institutional
Responsibility and	equity investors and market analysts also advertising, charity
Investor Relations	and sponsorship arrangements
Board Members and	Staff and other costs of Board members and other corporate
Other	·
	costs not fitting into other categories
Incremental ring-	Costs that have necessarily been incurred as a direct result of
fence compliance	complying with the additional ring fence condition
costs	requirements introduced by the Authority's licence
	modification direction dated 1 February 2013. Incremental
	costs reported may be one-off or ongoing in nature and must
	not have been included in any other cost reporting category.
	A comment should be included describing the nature of the
	costs that have been reported.
	Finance, audit and regulation
Network regulation	Any reasonable costs associated with network regulation, ie
	any costs that the network company would not reasonably
	have incurred were it operating in a non-regulated
	environment.
Other	All finance, audit and regulation costs (group net cash
	controllable costs)
	1

3.7 Operational training

Purpose and use by	The table records the numbers and costs of training
Ofgem	employees engaged on formal training and apprentice
	programmes including staff costs as well as other operational

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	training costs.
Guidance on completing this worksheet	Networks are required to split their training and apprentice costs and FTE numbers into the defined categories of 'craftsperson apprentice', 'engineer apprentice', and 'graduate and management trainee'. For TOs only the last category is mandatory. However, where it is possible the TOs should also categorise by these categories. Where TOs cannot do this then they should explain their categorisation. With the exception of external funding, all costs should be input as positive values. External funding should be input as negative values.

Specific definitions for this worksheet		
Craftsperson apprentice	Apprentices who are being trained to attain or retain skills commensurate with Level 1, 2 or 3 Jointers, Overhead Linesman, Fitters, Multi-skilled trades set out by Energy and Utility Skills	
Engineer apprentice	Apprentices being trained on an apprenticeship programme leading to qualification as an engineer.	
Graduate and	Employees engaged on graduate training programmes and	
management trainee Trainee/apprentice programme costs	other formal management training programmes. Costs associated with trainees and apprentices engaged under a formal approved programme	
Training costs	Specific costs of training courses materials and other costs specifically relating to training and apprentice programmes. This will only be the costs incurred in training apprentices and trainees whilst they are on engaged on the programme. Therefore the costs will not include the training of the existing workforce.	
Apprentice/trainee recruitment costs	Costs associated with recruitment of trainees and apprentices	
Other apprentice/trainee admin costs	Other programme costs other than net staff, training, and recruitment costs.	
External funding	Funding from any body (for example the National Employment Service) – either paid directly to a third party training provider or to the network company or its parent company - towards any trainee/apprentice programme costs.	
Other operational training costs	All operational training costs reported on table 1.3 excluding net programme costs already reported in this table. Detail should be provided in the free text fields and cost fields for any significant cost items falling under this heading.	
Apprentice and trainee programme FTEs	First to fourth year apprentices should be calculated on an FTE basis. For example if an individual employee is engaged on the first year of a programme for the first three months of a reporting year and progresses to the second year of the	

programme for the remaining nine months, then that individual will count as 0.25 first year FTEs and 0.75 second year FTEs.

3.8 Total transmission salary and FTE numbers

Purpose and use by Ofgem	The purpose of this table is to show the total transmission and business support gross staff costs and FTEs. This will provide a cost per FTE for comparisons of total transmission employment costs and business support employment costs
Guidance on completing this worksheet	The licensee should fill in total gross staff costs by type, and FTEs as indicated by the boxes shaded in yellow. Apprentices include craft and engineering apprentices and come from Table 3.7. Other trainees represent Graduate and
	Other Staff/Management Trainees. NGET should fill the table in for the total gas and electricity transmission staff separating out TO from SO. SHE Transmission for the transmission company. SPTL for the whole of Scottish Power Power Systems Ltd (SPPS).

Specific definitions for this worksheet

Specific definitions for this worksheet	
FTE	Full time equivalent
Craftsperson	Employees working in roles requiring the following qualifications - level 1, 2 or 3 Jointers, overhead linesman, fitters, multi-skilled trades set out by Energy and Utility Skills or equivalent
Engineer	Employees working in roles requiring engineering qualifications.

3.9 Analysis of excluded, consented, and de minimis services

Purpose and use by Ofgem	The purpose of this table is to collect costs relating to Excluded, Consented, and De Minimis services provided by the transmission business by type of service.
Guidance on completing this worksheet	Cost and revenue should be input as positive values. The description of services being provided should match those used in the revenue RIGs for the income received.
	It may be that some services have no identifiable costs
	The total costs are linked to Table 3.1a

None	
1 10110	

3.10 Provisions

Purpose and use by Ofgem	The purpose of this table is to collect details of the provisions that have affected the results so that Ofgem can understand any significant events happening in the year.
Guidance on completing this worksheet	Data should be input as required in the yellow shaded cells. Costs should be input as positive or negative values as appropriate. SO costs should be reported separately from TO costs where appropriate. Provisions are those defined under standard accounting terminology.

Specific definitions for this worksheet

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INOHE	

3.11 Related party transactions

Purpose and use by Ofgem	The purpose of this table is to provide an analysis and understanding of the nature and size of services provided to the transmission business and other GB regulated network businesses by each related party. The information is split between whether the profit margin is allowed or not allowed under Ofgem's rules.
Guidance on completing this worksheet	Input a description of the services provided by each related party. Input as positive numbers the turnover data for the related party as charged to the transmission business, other regulated network businesses and external customers. Input as negative numbers the respective costs incurred.
	Where the total charge from a related party to the transmission business is less than £500k per annum that related party does not need to be included on this table.
	Whether a related party margin is allowed or not is defined in appendix

Guidance: Version 1.3

3.12 Innovation Rollout Mechanism (IRM) expenditure

Purpose and use by Ofgem	The Innovation Rollout Mechanism allows a TO to request additional funding from the Authority to roll out proven innovations if they have carbon or wider environmental benefits, provide long term value for money, the licensee cannot receive commercial benefits from the roll out within the remainder of the price control period and they are not used to fund ordinary business arrangements.
Guidance on completing this worksheet	The IRM worksheet provides Ofgem with the costs and other data relating to schemes designed to rollout a proven innovation.
	There are two reporting tables within this worksheet. The first is for the scheme name and category, with total costs reported by year. The categories can refer to capex or opex.
	The second is to split the total costs by cost type. These costs will be added to the RAV in accordance with other costs.
	This sheet will only need to be completed where the licensee has applied to, and the authority has approved a relevant adjustment for the purposes of the IRM.
	There are two potential application windows for a relevant adjustment. The first window opens on 1 May 2015 and ends on 31 May 2015 and the second application window opens on 1 May 2018 and closes on 31 May 2018. Therefore no expenditure should have been incurred (and therefore reported) prior to 30 November 2015.

Specific definitions for this worksheet

None

3.13 Network Innovation Allowance (NIA) expenditure

Purpose and use by Ofgem	This table will report the amounts spent under the Network Innovation Allowance (NIA). The Network Innovation Allowance is a set allowance that the licensee can use to spend on innovation projects each year on a use it or lose it basis.
Guidance on completing this worksheet	Costs reported in this table must be incurred in accordance with the most recent version of the NIA governance document, as published by Ofgem. This worksheet requires the same data broken down by different categories. The first requires detailed cost data to be reported by cost type. The

second breaks the costs down as either Bid Preparation Costs, or against each (named) project. Data will be reported for the reporting year in question only.

This is the total amount spent by the licensee under the NIA. However, it should be noted that this is not equal to the total Allowable NIA Expenditure, since the NIA includes the licensee's contribution, Unrecoverable NIA Project Expenditure and Direct Benefits.

The NIA Expenditure is required to monitor the total amount spent by the Licensee in order to align with the regulatory accounts. Allowable NIA Expenditure is required to monitor the amounts being claimed through the NIA Funding Mechanism.

The Allowable NIA Expenditure is calculated as the total of Eligible Bid Preparation Costs and Eligible NIA Expenditure, and as per Special Licence Condition 1H/3H/2E, and must not exceed the licensee's NIA Allowance. This is verified by a check line in the table.

Specific definitions for this worksheet

None

3.14 Network Innovation Competition (NIC) expenditure

Purpose and use by Ofgem	This worksheet collects expenditure from the NIC Project bank account for any NIC project that is being implemented. The expenditure is recorded by project.
Guidance on completing this worksheet	Any Disallowed or Halted Project Revenues should also be included in this worksheet.
	Expenditure incurred on NIC projects should be in accordance with the Project Direction issued by the Authority and the NIC governance document.
	This worksheet also records the Royalty Revenues that are generated, the Royalties Return Income and the Retained NIC Royalties by Project. Details on the Royalties mechanism is outlined in chapter 10 of the NIC governance document.
	As NIC projects does not form any part of T1 allowances and requires separate detailed reporting every 6 months in the Project Progress Reports, this table will serve only to balance

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this worksheet to the regulatory accounts.
This table should only show expenditure for the reporting year and not the outstanding funds required for the project.
No expenditure should have been incurred (and therefore reported) prior to April 2013.

Specific definitions for this worksheet

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	None	

3.15 Physical security opex

Purpose and use by Ofgem	The purpose of this table is to inform Ofgem of the opex spent on physical security in relation to DECC's enhanced physical security upgrade programme (PSUP).
Guidance on completing this worksheet	Licensees should provide costs associated with any post- delivery support agreements (PDSA) relating to assets.
	Overhead costs may include (but are not limited to) project management costs, internal management costs and audit fees.
	Any other costs must be listed under 'Other' and detail provided within the commentary.

Ν	one	

6. Instructions for completing the capital expenditure worksheets

Chapter Summary

The purpose of this chapter is to inform the completion of the capital expenditure worksheets by each TO. This is to enable Ofgem to effectively monitor the performance of the companies in relation to their business plans.

Introduction

- 6.1. The purpose of the worksheets in this area is to report capital expenditure (capex) information at various different levels to enable Ofgem to fully understand capex year on year.
- 6.2. Licensees should submit accurate and (where instructed) audited figures of their costs for the relevant period. Further guidance is provided below.
- 6.3. All costs are to be entered on a cash controllable basis. This means exclusive of all provisions and all accruals and prepayments that are not incurred as part of the ordinary level of business.
- 6.4. Forecast data will **only** be required on the capex summary worksheet.

Overview of worksheets

- 6.5. The worksheets included within this chapter are:
 - 4.1 Capex summary
 - 4.2 Expenditure on load related schemes
 - 4.3 Expenditure on non-load related schemes
 - 4.4 Uncertain Costs
 - 4.5 TO Non operational capex
 - 4.6 System operator (SO) capex (National Grid only)
 - 4.7 Transmission Investment Renewable Generation (TIRG)
 - 4.8 Physical security capex

4.1 Capex summary

Purpose and use by Ofgem	The purpose of this table is to collect information relating to the licensee's actual expenditure in the reporting year and forecast expenditure for future years. For all future years in 4.1 we would ask that companies manually enter a high level forecast profile of expenditure (ie unlike actual expenditure these forecasts are not a summary from a more detailed table elsewhere in the reporting pack).
Guidance on completing this worksheet	Actual Expenditure: Please ensure that the numbers reconcile with the regulatory accounts. Costs in the reporting year are auto-populated from other tables: 4.2 (load related), 4.3 (non-load related), 4.4 (uncertain costs), 4.5 (Non operational capex) and 4.7 (TIRG) and table 4.8 Physical Secruity Capex
	<u>Load Related Expenditure</u>
	The costs for Load Related expenditure is sub-divided into each of the main load-related categories: Local enabling entry sole use, local enabling exit sole use, Local enabling entry, Local enabling exit and Wider Works. Within some of these categories, there are a number of volume drivers and other uncertainty mechanisms that are TO specific. In the table we have identified for each of the mechanisms, which TO it refers to. In addition for each of the categories has a other schemes (not subject to uncertainty mechanisms) line, which all TO's should fill for any costs that are not subject to any one of the uncertainty mechanisms.
	Non-Load Related Expenditure
	Expenditure necessary for the replacement of existing 'life expired' assets and refurbishment of existing assets. Costs should be split by lead and non-lead assets.
	<u>Uncertain Costs</u>
	This includes TO capex schemes that fall under the licence conditions 'Uncertain costs' (Special Condition 6H) and 'Mitigating the impact of Pre-existing Transmission Infrastructure on the visual amenity of Designated Areas' (Special Condition 6G), which are detailed in each of the TO's special licence conditions.
	Capitalised Overheads (SHE Transmission only)
	These lines are for use by SHE Transmission as it does not

allocate overheads to individual capital projects. Overheads for SHE Transmission are reflected in the totals of other lines on table 4.1.
Memo information: TOs are required to split the 'Related Party Margins Disallowed Total' by the capex categories in table 2.2. This is will then input table 2.1.
<u>Forecasts</u>
Forecasts should be input in the real price of the year to which the RIGs relate. Forecasts will therefore include impacts of real price effects, but not inflation.

Specific definitions for	
Local Enabling (Entry – sole-use)	Defined as expenditure by the TO required to meet increases in the total power entering the network from generators and interconnectors. It only includes expenditure on assets that are covered by connection charges as of the connection charging boundary at the time.
Local Enabling (Exit – Sole-Use)	Defined as expenditure by the TO required to meet increases or changes in the power demand of grid supply points and other directly connected customers as a result of load growth, load transfer or closure of embedded generation. Only includes expenditure on assets that are covered by connection charges as of the connection charging boundary at the time.
Local Enabling (Entry)	Expenditure on assets covered by TNUoS charges yet directly triggered by one or more individual generation connection projects.
Local Enabling (Exit)	Expenditure on assets covered by TNUoS charges yet directly triggered by one or more individual demand connection projects.
Wider Works	Expenditure required for generation- or demand-driven reinforcement of the transmission system in order to fulfil the company's obligations to the transmission Licence. Includes load related expenditure covered by use of system charges and excludes Local enabling (entry), Local Enabling (Exit) and TSS expenditure as well as expenditure allowed under TIRG.
Infrastructure – TSS	Expenditure on schemes aimed primarily at improving the efficiency of system operation.
Asset Replacement	Expenditure necessary for the replacement of existing 'life

and refurbishment	expired' assets. Replacement schemes include the following main sub-categories: Transformers, Reactors, Switchgear, Overhead Lines, Underground Cables, Protection & Control.
<u>Cable Tunnels (asset replacement related)</u>	Capex spent on cable tunnels where there is asset replacement taking place.
Substation other	Non-load related investment within a substation not covered by other sub categories.
Other TO	Comprises all other miscellaneous items, which do not fall into any other sub categories, such as, non-load related investment in overhead lines and cables outside substations. Please clarify in the accompanying commentary what types of cost items are included here.
Weather related resilience	Projects undertaken where the primary driver is weather-related resilience.
Mitigating the visual impact of pre-existing infrastructure	This includes all project specific costs associated within this activity and may include preconstruction costs such as the costs incurred during the consultation process. Non project specific costs should not be excluded and treated the same as all other non-project specific costs.
Cable tunnels	Includes all non-load related expenditure on cable tunnels
Physical site security	Projects where the primary driver is security of assets and their operation.
BT21CN	This is an uncertain costs category for SHE Transmission only. This consists of capex spend associated with transitioning to the BT 21st Century Network programme.
Customer Contributions (enter as negative)	These exclude connection charges.
TIRG	Capex associated with any ongoing Transmission Investment for Renewable Generation schemes.

4.2 Expenditure on load related schemes

Purpose and use by Ofgem	The purpose of this table is to collect annual cost information incurred during the reporting year. Closed schemes and any schemes incurring expenditure in the reporting year should be captured in this table. Actual expenditure from this table should feed the column for the reporting year concerned in table 4.1 (capex summary).
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Guidance on completing this worksheet	Schemes should be provided on an actual cost basis. Expenditure for TPWW schemes should be provided with detailed commentary explaining why the scheme is no longer required in the original timescales in an application of the Network Development Policy by the Licensee and cannot be used subsequently to contribute to the other outputs Delivered by the licensee. Information provided will be
	Gross costs should be entered in column F. Customer contributions should be entered as negative values.

Specific definitions for this worksheet		
None		

4.3 Expenditure on non-load related schemes

Purpose and use by Ofgem	The purpose of this table is to collect annual cost information incurred during the reporting year. Closed schemes and any schemes incurring expenditure in the reporting year should be captured in this table. Actual expenditure from this table should feed the column for the reporting year concerned in table 4.1 (capex summary). 'Security resilience (excluding BT21C)' which must be reported in Table 4.3 under the 'Non-load > Other TO' category.
Guidance on completing this worksheet	Schemes should be provided on an actual cost basis.

Specific definitions for this worksheet

Mono	
i None	

4.4 Uncertain Costs

Purpose and use by Ofgem	The purpose of this table is to collect information on TO capex schemes that fall under the licence conditions 6G 'uncertain costs' and 6H 'Mitigating the impact of Pre-existing Transmission Infrastructure on the visual amenity of Designated Areas' detailed in each TO's special licence conditions.
Guidance on completing this worksheet	In the table we have identified those categories that are specific to an individual TO, in line with the special licence conditions for 'uncertain costs' and 'Mitigating the impact of Pre-existing Transmission Infrastructure on the visual amenity of Designated Areas'. Please note that no input is required for

physical security as this line is linked to Table 4.8.	
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Mitigating the visual	Both the construction costs and pre-construction costs
impact of pre-	associated with the mitigation of visual impact of pre-existing
existing	infrastructure should be reported. Pre-construction costs are
infrastructure	project specific costs and may include such items as project specific consultations.

4.5 TO Non operational capex

Purpose and use by Ofgem	The purpose of this table is report expenditure on non operational capex.
Guidance on completing this worksheet	The table requires the licensee to insert the name of specific IT systems / projects where the total expenditure is £1m or more. Full project details, not just expenditure in the year, should be entered as indicated by the column headings. Expenditure on all other assets and IT assets less than £1m should be entered in total. Where the total spent on a project is more than £1m but the expenditure within a particular year is less than £1m, this should be shown as an individual project and not included in the IT expenditure <£1m category. The totals in this table feed into table 4.1 (capex summary). Outputs Please enter the appropriate outputs using the RIIO descriptors where these can be identified.

Non Operational Capex	 Expenditure on new and replacement assets which are not system assets. Includes: IT & telecoms (excluding SO IT expenditure). Vehicles (including mobile plant and generators). Land and Buildings used for administrative purposes. Plant & Machinery – including small tools and equipment and office equipment.
New IT system	A new IT system that is an additional to or replaces an existing IT system.
Enhancement	A change to an existing IT system that add to the capabilities

	of the system.
Refresh	A change to the software or hardware of the system due to an upgrade from the supplier.

4.6 System operator (SO) capex (National Grid only)

Purpose and use by Ofgem	The purpose of this table is to report the expenditure on SO capex. Ofgem shall use this table to collate all investments undertaken for the SO over the RIIO period.
Guidance on completing this worksheet	Details of Project / Expenditure within category The licensee shall enter the appropriate asset heading for the first year the RIGs shall take effect from. Thereafter the licensee shall not change the asset headings without prior consent from Ofgem. Data Centres are a specific asset which Ofgem have separately identified for reporting (please see below).
	IT System Under each asset please enter details the project investment. Once a project investment descriptor has been entered it shall be retained in the table for all years going forward throughout the RIIO control. The licensee shall enter details of new investments as appropriate.
	New/Enhancement/Refresh For each investment please indicate whether it is New / Enhancement / Refresh as appropriate.
	Outputs Please enter the appropriate outputs using the RIIO descriptors, where these can be identified.
	Data Centres For investments associated with Data Centres please enter the specific projects. Once a project investment descriptor has been entered it shall be retained in the table for all years going forward throughout the RIIO control. The licensee shall enter details of new investments associated with data centres as appropriate. Data Centres shall remain as an asset heading throughout the RIIO price control.
	EMR Capex expenditure related to the development of computer systems for EMR should be identified as a separate project within the table. EMR capex is then desicted from total SO capex at the bottom of the table.

Specific definitions for this worksheet

None	
None	

4.7 Transmission Investment Renewable Generation (TIRG)

Purpose and use by Ofgem	To collect information relating to capital expenditure of all ongoing TIRG schemes.
Guidance on completing this worksheet	The totals in this table feed into table 4.1 (capex summary). We require TIRG forecasts to enable us to calculate total revenue/financing requirements of each TO.
	Scheme Status – For those projects where costs have been incurred and works are complete, these projects should be marked as 'complete'. For those projects where costs have been incurred but works are not yet complete, these projects should be marked as 'in progress'.

Specific definitions for this worksheet

Specific definitions for	this worksheet
Scheme Description and Unique ID	We expect this to match previous submissions within TPCR4, TPCR4 Rollover and RRP submissions. Schemes completing in this reporting year should reconcile with data in tables 5.8 (lead asset unit costs) and 5.9 (non lead asset unit costs).
Final Commissioning Date	This should be the year of commissioning of the scheme – which we would generally anticipate be the same as the year of last expenditure. TIRG spends remains in 'shadow' RAV for five years post commissioning (receiving a different rate of return). We require an estimation of the commissioning date so that the timing of the addition to RAV can be calculated.

4.8 Physical security capex

Guidance on Licensees must provide information for all sites where	Purpose and use by Ofgem	The purpose of this table is to inform Ofgem of the capex spent on physical security in relation to DECC's enhanced physical security upgrade programme (PSUP).
completing this worksheet physical security has been upgraded, or where work is currently being (or planned to be) carried out, in relation to the PSUP. This does not include sites where general security resilience is being upgraded under the category 'security		currently being (or planned to be) carried out, in relation to the PSUP. This does not include sites where general security resilience is being upgraded under the category 'security resilience (excluding BT21C)' which must be reported in Table 4.3 under the 'Non-load > Other TO' category. Input the actual start and end dates for projects. The start date must be when the licensee begins designing the site

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date must be when the completed works are signed off (by CAST) as meeting the SSOR. Where dates are not known, the planned start/end dates must be populated.
Licensees must input costs which have been incurred in the current reporting year and the total planned costs (VFM1) and, where applicable, total outturn costs (VFM2).
NB. This table should be submitted separately to the RIGs submission.

Specific definitions for	this worksheet
CAST	Centre for Applied Science and Technology
VFM1	Audit carried out by consultants who provide a view as to whether quotations provided by contractors are efficient (value for money).
VFM2	Audit carried out by consultants who provide a view as to whether the final costs for the completed works are efficient (value for money).

7. Instructions for electricity network data worksheets

Chapter Summary

The purpose of this chapter is to inform the completion of the electricity network data worksheets by each TO. This is to enable Ofgem to effectively monitor the performance of the electricity transmission networks during RIIO-T1.

Introduction

- 7.1. The purpose of the worksheets in this area is to report data on the network and its performance at various different levels to enable Ofgem to fully understand the network changes and network performance year on year.
- 7.2. Licensees should submit accurate and (where instructed) audited figures of their data for the relevant period. Further guidance is provided below.

Overview of worksheets

The worksheets included within this chapter are:

- 5.1 System characteristics and activity indicators
- 5.2 Faults and failure reporting
- 5.3 Boundary transfers requirements
- 5.4 Boundary transfers and capability development
- 5.5 Demand and supply at substations
- 5.6 Lead assets additions and disposals
- 5.7 Non lead assets additions and disposals
- 5.8 Lead asset unit cost actuals
- 5.9 Non lead asset unit costs

5.1 System characteristics and activity indicators

Purpose and use by Ofgem	The purpose of the table is to collect high-level information relating to physical characteristics of the transmission network and to provide key indicators of the overall level of transmission activity.
Guidance on completing this worksheet	General: All system characteristics should normally be entered as at the end (ie 31 March) for a reporting year.
	Transmission circuit length: Please provide the circuit kilometres for transmission circuits by operating voltage level and split by overhead and underground construction.
	Substations numbers: Please provide the number of substations in line with the specific definition below.
	Circuit Breakers numbers: Please provide the number of circuit breakers at each voltage level.
	Transformers numbers: Please provide the number of transformers by primary/secondary voltage. 'Other' transformers should include spare transformers and quadrature boosters.
	Reactive compensation numbers: Please provide the number of shunt reactors, mechanically switched shunt capacitors and static var compensators. Reactive compensation includes all static and variable reactive compensation devices owned by the licensee that are connected directly to the licensee's network. Variable compensation includes Static VAR Compensators (SVC) and rotating compensation but excludes that from generating plant.
	Towers / supports numbers: Please provide the number of transmission towers by operating voltage. In the event of shared routes, the towers should be listed against the higher voltage level and not double counted.
	Grid Supply Points (GSPs): Please provide the number of Grid Supply Points. Grid Supply Points has the meaning as defined in the Grid Code. For clarity, in the event of exporting GSPs due to embedded generation, these should be counted as Grid Supply Points only and not as Grid Entry Points as well.
	Grid Entry Points: Please provide the number of Grid Entry Points. Grid Entry Points has the meaning as defined in the

Grid Code.

HVDC Links: Please provide details of existing HVDC links.

Measured System Maximum Demand (GW)
Actual outturn peak demand on the TO's network based on
the maximum half-hour average. To be provided by each TO
for their network.

System Average Cold Spell (ACS) Demand (GW)
As defined in the NETSSQSS for the reporting Year (y), ACS
demand should be entered as the ACS corrected outturn.

Transmission losses at system maximum demand Total Transmission losses (GW) at measured system maximum demand (as defined above). To be provided by each TO for their network.

Units transmitted to GSPs

Total annual units (GWh) transmitted to GSPs as metered at the GSPs. To be provided by each TO for their network.

Units of Transmission losses

Total annual units (TWh) lost through Transmission System losses. To be provided by each TO for their network.

Total directly connected generation (GW)
Total capacity of generation connected directly to the licensee's network. To be provided by each TO for their network.

Total directly connected wind generation (GW)
Total capacity of wind generation connected directly to the licensee's network. To be provided by each TO for their network.

Total embedded generation (GW)

Total capacity of embedded generation connected to the licensee's network that has use of system rights or equivalent. To be provided by each TO for their network.

Supply (GW)

Please provide the details of the demand from directly connected DNOs and customers.

Transmission system utilisation (MW.km) based on ACS intact flow

Total MW.km with MW flow on each circuit based on the planned transfer condition and an intact network as set out in the NETSSQSS. This will be provided by NGET as GBSO for all three TOs.

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External system includes: transmission systems owned by other transmission licensees within or outside GB, and distribution systems outside GB. To be provided by each TO for their network.

Transfer to/from External Systems - Maximum (GW)
For the reporting year TOs should report maximum measured half-hour average transfer to and from an external system.

Transfer to/from External Systems - (GWh)
Total annual power transfer to and from an external system.
To be provided by each TO for each linked External System on their network.

Specific definitions for this worksheet

Specific definitions for	Specific definitions for this worksheet	
Transmission circuits	Transmission circuits are as defined in the National Electricity Transmission System Security and Quality of Supply Standard (NETSSQSS) but exclude transformers. For clarity, a 50km double-circuit 400kV route should be included as 50km + 50km in the 400kV category. A 20km 400kV double-circuit construction with one side run at 400kV and the other at 275kV should be included as 20km in the 400kV category, and 20km in the 275kV category.	
Substation	 To be counted as a substation, a site has to meet one or more of the following criteria: Has voltage changing transformers, ie SGTs or GTs; Has circuit breaking switchgear, ie a switching substation; Has capacitors or voltage regulators; Connects two or more transmission circuits through a busbar; Is electrically separated from another substation of the same voltage on the same physical site, and this is reflected in the operational nomenclature. The number of substations at a site is dependent on the number of different voltage busbars there are, not the number of different voltages in use at that site. For example, one or more of the feeders may be transformer feeders, e.g. 400/275kV, but the site would only be considered as a 275kV site unless there was 400kV switchgear present. Cable compounds are not substations unless they have circuit breaking switchgear. Where there is more than one company's equipment at a substation, the owner of that substation is defined as being the owner of the busbars, couplers and sections, if present. 	

5.2 Faults and failure reporting

Purpose and use by Ofgem	The purpose of this table is to collect information relating to the quality of transmission service delivered.
Guidance on completing this worksheet	The interpretation of faults and failures should be consistent with the specific definitions below. The causes of failures and faults should be consistent with codes from the National Faults and Interuption Reporting Scheme (NaFIRS).
	The TO should report any faults or failures that are currently under investigation or the cause is unknown, in the 'Unknown' category. Within the commentary the TO should state how many of these are currently under investigation and when it expects the investigation to be complete.
	When reporting fault and failures caused by airborne deposits licensees should focus on the specific cause of the fault or failure – did the industrial pollution lead to corrosion of conductors which subsequently failed (in which case use code 15) or did the depositing of material on the conductors lead to arcing or similar (in which case use code 10) or was it the moisture content of the industrial pollution (code 14).
	Only faults and failures of lead assets are required to be broken down by asset type and cause. For non lead assets licencees are required to report only the total numbers of faults and failures for 'measurement transformers' and for 'other non lead assets'.

Specific definitions for this worksheet

Specific definitions for	this worksheet
Faults	An event which causes plant to be automatically disconnected from the HV system for investigation and further action if required.
Failures	A power transformer failure is defined as an event that requires the unit to be taken off the plinth either for replacement or factory repair.
	A reactor failure is defined as an event that requires the unit to be taken off the plinth either for replacement or factory repair.
	Failure of circuit breakers is defined as an event that requires the replacement of the breaker, or repair equivalent to the replacement of at least one pole.
	An overhead line is considered to have failed if a conductor

drops.

Cable failures are events where a cable section, joint or sealing end has failed in service requiring its replacement. Third party causes are not counted. Pilot cable failures should be classified under protection and control.

A protection or control failure is defined as an event that requires the bay (and associated primary equipment) to be removed from service to undertake repair which entails the replacement of a complete device (containing a protection or control function) without which the bay could not remain service on a continuous basis.

Compensation failure is defined as an event that requires replacement of fault-damaged components other than those normally replaced under routine

A substation auxiliaries failure is defined as an event that requires the replacement of the entire unit.

5.3 Boundary transfers requirements

Purpose and use by Ofgem	The purpose of this table is to collect information on transmission capacity against required transfer levels at key parts of the transmission system, as indicators of load-driven need for developing the transmission infrastructure.
Guidance on completing this worksheet	The two sections of the table should be completed consistent with the generation and demand scenario from the most recent publication of the Future Energy Scenarios (FES) document using the requirements of the prevailing security standards. If a boundary does not form part of the Main Interconnected Transmission System, the associated commentary should identify how the necessary capacities have been derived. Tos must provide a single line diagram and geographic diagram showing the location of the system boundaries in the first year. In subsequent years TOs only need to provide updated diagrams as and when things change. To's should confirm in the commentary if there has been no changes during the reporting year. In the accompanying commentary, the transmission owner should provide a description of each boundary including the circuits that cross the boundary and any specific challenges for transferring power across the boundary.
	The two sections of the table should be completed consistent

with the best view generation and demand scenario using the requirements of the prevailing security standards. If a boundary does not form part of the Main Interconnected Transmission System, the associated commentary should identify how the necessary capacities have been derived.

The Planned Transfer for each boundary will be calculated as the value for the Planned Transfer Condition arising from scaling the (forecast) registered capacity of each directly-connected power station and embedded large power station such that the total of the scaled capacities is equal to the ACS peak demand minus imports from external systems. The scaling technique to be applied will be that resulting in the most onerous boundary transfer requirement, consistent with either the economy or security scaling technique.

The Required Transfer for each boundary will be calculated by application of the interconnection allowance (for the security scaling technique) or boundary allowance (for the economy scaling technique) to the most onerous boundary transfer requirement. Where the interconnection allowance or boundary allowance are not required to be applied (e.g. due to the smaller part of the system having less than 1500MW of demand), the Required Transfer should equal the Planned Transfer and this should be discussed in the associated commentary.

Annual cycle: Ofgem understands that the annual cycle for boundary transfers may not always align with the regulatory reporting year. The annual cycle start and end dates should therefore be reported on this sheet.

Specific definitions for this worksheet

Boundary	A system boundary splits the transmission network into two parts across which transfer capabilities can be assessed. For the avoidance of doubt, system boundaries are not network ownership boundaries and each licensee's network could
	contain multiple system boundaries.

5.4 Boundary transfers and capability development

Purpose and use by Ofgem	The purpose of this table is to collect information on the capacity delivered during the reporting year.
Guidance on completing this worksheet	Schemes included within this table should comply with the following definition of 'Wider Works' as specified on Page 4 of the "Connect and Manage Guidance" document issued by

National Grid in January 2011 ⁶ . Scheme references in this table should be consistent to those set out in the cost tables.
Commentary column: TOs should provide supporting commentary for tables 5.3 and 5.4 in their supporting narrative. High level summary commentary to explain the changes should be entered here. These can then be expanded on in detail in the supporting narrative as necessary.

Specific definitions for	
Wider Works	Is the other transmission reinforcement works (ie not Enabling Works) associated with reinforcing the network to accommodate the changes to generation and demand backgrounds and ensure compliance with the prevailing security standards.
Boundaries	As defined in Table 5.3. The list of boundaries is autopopulated from Table 5.4.
Boundary Capability (MW)	Thermal, voltage and stability: capabilities delivered for each boundary calculated in accordance with the prevailing security standards criteria. Thermal capability should be provided for all boundaries. Voltage and Stability should always be provided when it is known to be the limiting factor and when the information is known. The 'capability at start' refers the capability of the network at the start of the reporting year before any reinforcement has been completed. Where there is changes to the network capability that has not been caused by additional reinforcement, the commentary should describe the changes that has caused this.

5.5 Demand and supply at substations

Purpose and use by Ofgem	The purpose of this table is to collect information relating to actual and forecast demand of substations within access groups.

⁶ http://www.nationalgrid.com/NR/rdonlyres/01463C70-F178-4930-9A00-780FE5330F2D/47332/CMversion50.pdf

Guidance on completing this worksheet	General: The assessment of demand and supply capacity for access groups should be completed in accordance with the relevant security standards (ie NETS SQSS), taking due account of any Distribution Network Owner (DNO) information provided as part of the Grid Code submissions.
	Actual outturn demand information should be used for the reporting year

Specific definitions for	
Peak demand / intact capacity	The number of access groups in each loading band (>100%, 100-80%, <80%) with the maximum demand of the access group expressed as a percentage of the installed transformer capacity.
Seasonal peak demand / limiting n-1 capacity	The number of access groups in each loading band (>100%, 100-80%, <80%, No Capacity) with the most onerous access group seasonal demand expressed as a percentage of installed transformer capacity during the most onerous single circuit outage. The most onerous seasonal demand may not be coincident with the peak demand as the transformer rating may be reduced at other times of the year resulting in a higher relative level of loading.
Maintenance period access group demand / limiting n-2 capacity ->300MW groups	The number of access groups in each loading band (>100%, 100-80%, <80%, No Capacity) with the maintenance period access group demand (as agreed with the DNO) expressed as a percentage of installed transformer capacity during the most onerous two circuit outage. The access group demand used should be consistent with the access periods for each transmission interface circuit identified through the Grid Code submissions. This section is only completed for access groups where the total demand is above 300MW.
Maintenance period access group demand / limiting n-3 capacity - >1500MW demand groups only	The number of access groups in each loading band (>100%, 100-80%, <80%, No Capacity) with the maintenance period access group demand (as agreed with the DNO) expressed as a percentage of installed transformer capacity during the most onerous three circuit outage. The access group demand used should be consistent with the access periods for each transmission interface circuit identified as part of the Grid Code submissions. This section is only completed for access groups where the total demand is above 1500MW.

5.6 Lead assets additions and disposals

Purpose and use by	To collect information relating to the additions and disposals
Ofgem	

	of lead assets on the licensee's network.
Guidance on completing this worksheet	The following information is required for both load and non-load related expenditure.
Wallenger	Volumes on Total number of lead assets commissioned onto the network during the reporting year within non-load related and load related schemes. Assets added on are expected to be in the range RP3 to RP4.
	Volumes Off Total number of lead assets removed from the network during the reporting year within non-load related and load related schemes. Volumes off captures lead assets of varying replacement priorities.
	Data quality revisions Table 5.6 should reflect the most up to data and accurate data available to the TO. If the TO has revised any of its asset data to improve data accuracy then a version of table 5.6, that has been normalised to exclude the impact of any data quality revisions, must be reported in table 5.6a. If there have been no data quality revisions since the TO's last submission then tables 5.6 and 5.6a should be identical. We expect to see only minor data quality revisions from year to year. It should be noted that the The Licensee must notify Ofgem of the possibility of any significant revisions to improve data quality. This notification must be issued to Ofgem as soon as it becomes evident to the Licensee that a reasonable likelihood exists of significant inaccuracies in any of its previously submitted data.

Fittings Only	This is to capture the number of circuit km of fittings replaced as part of stand-alone 'fittings only' or 'minor refurbishment' schemes, and therefore excludes the volume of fittings that are replaced as a consequence of full re-conductoring
	schemes.

5.7 Non lead assets additions and disposals

Purpose and use by Ofgem	To collect information relating to the additions and disposals of non-lead assets on the licensee's network.
Guidance on completing this worksheet	The following information is required for both load and non-load related expenditure.
	Volumes On
	Total number of non-lead assets commissioned onto the network during the reporting year within non-load related and

load related schemes.
Volumes Off Total number of non-lead assets removed from the network during the reporting year within non-load related and load related schemes
Data quality revisions Any data quality revisions should be reported in column J. Where volumes have been revised downwards from previous year then these should be entered as negative values. See also related guidance on table 5.6. Note: Data for 'Metering, Telecommunications, and Protection & Control' is not required for the first year of reporting. This is an interim arrangement to phase out the reporting requirement for these assets on the basis of materiality.
for the first year of reporting. This is an interim arrangement to phase out the reporting requirement for these assets on

None		

5.8 Lead asset – unit cost actuals

Purpose and use by Ofgem	The purpose of this table is to understand the unit costs for key equipment classes on which material spend has been completed in the Reporting Year. This table covers both load-related and non-load related expenditure.	
Guidance on completing this worksheet	Table 5.8 captures the costs of schemes financially completed within the Reporting Year and identifies the lead assets delivered by those schemes. This allows the calculation of actual mean unit costs on an annual basis from load related and non-load related expenditure.	
	The lead asset categories are as follows:	
	transformers and other wound plant	
	circuit breakers	
	overhead line full re-conductoring	
	overhead line minor refurbishment/fittings only	
	underground cables	
	More detailed definition of the cost allocations to be used for the lead asset categories is provided in Appendix 4 of this document. In summary unit costs for the lead asset categories should include plant purchase, delivery, installation and testing, as well as closely-associated overheads, such as	

commissioning costs for the specific lead asset. In case of doubt over interpretation, the unit costs should **EXCLUDE:** • Business support overheads (e.g. programme management, type specification and testing) It is expected that the licensee will explain unit cost outliers or scheme-specific points of interest in the supporting commentary document. Non-unit costs are specifically defined to improve the comparability of reported unit costs. Any item not included in a unit cost should be added to an appropriate non-unit category, e.g. 'Other (inc non-lead electrical assets)'. In the case of unusual/bespoke items which are not within lead asset categories (such as SVCs), the cost should be identified as non-unit and the licensee should explain what was delivered in the supporting commentary.

Specific definitions for this worksheet

See Appendix 4

5.9 Non lead asset unit costs

Purpose and use by Ofgem	The purpose of this table is to collect cost book unit costs for Metering, Telecommunications, Protection and Control.
	NB.Please not that this information is not required for the 2013/14 reporting year. Ofgem will continue to assess whether there is a requirement for this level of detail on non-lead assets.
Guidance on completing this worksheet	Please provide the 'cost book' unit cost for these assets.

Specific definitions for this worksheet

None

5.10 Average Circuit Unreliability

Purpose and use by Ofgem	The purpose of this table is to collect information on circuit unreliability to understand the performance of the system.	

Guidance on
completing this
worksheet

Average Circuit Unreliability (ACU) (%) is the sum for all circuits of hours unavailable/ (No. circuits * No. hours in period), where unavailability is due to functional failures.

ACU is collected:

- On monthly basis (for all circuits)
- Split by the asset category and asset health index of the asset that caused the functional failure.

For the number of monitored circuits for ACU (#)the To should enter the toal number of circuits monitored for the ACU calculation as at year end.

Specific definitions for this worksheet

Specific definitions for this worksheet		
	The unreliability events which result in unavailability of the network due to outages which cannot be deferred until the next planned intervention and include: • Enforced unreliability outages taken at less than 24 hours notice (unplanned unavailability) • Planned unreliability outage taken after 24 hours notice.	

8. Instructions for completing the outputs worksheets

Chapter Summary

The purpose of this chapter is to inform the completion of the outputs worksheets by each TO. This is to enable Ofgem to effectively monitor the performance of the companies in delivering their RIIO-T1 outputs and to determine any associated reward or penalty under the incentive arrangements consistent with the Final Proposals.

Introduction

- 8.1. The purpose of the worksheets in this area is to report performance against the various outputs. This will allow Ofgem to monitor licensee's performance against the output targets year on year.
- 8.2. Licensees should submit accurate and (where instructed) audited figures of their data for the relevant period. Further guidance is provided below.
- 8.3. All costs are to be entered on a cash controllable basis (see Glossary). Cash controllable means exclusive of all provisions and all accruals and prepayments that are not incurred as part of the ordinary level of business.

Overview of worksheets

- 8.4. The worksheets included within this chapter are:
 - 6.1 Customer satisfaction
 - 6.2 Environment Business carbon footprint (BCF)
 - 6.3 Reliability
 - 6.4 SHE Transmission and SPTL Timely connections
 - 6.5 SF6 emissions
 - 6.6 Designated area visual amenity outputs for existing transmission infrastructure
 - 6.7 Baseline Wider and Works Strategic Wider Works (SWW) outputs
 - 6.8 SWW Pre-construction deliverables
 - 6.9 SHE Transmission local generation volume driver

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- 6.10 SPTL Local generation connections volume driver sole use
- 6.10 SPTL Local generation connections volume driver shared use
- 6.11 NGET wider works volume driver
- 6.12 NGET planning requirements
- 6.13 NGET local generation volume driver
- 6.14 NGET local demand volume driver
- 6.15.1 Network Output Measures (NOMS) Asset Health
- 6.15.2 NOMS Replacement Priority
- 6.16.1 Criticality substations
- 6.16.2 Criticality circuits
- 6.16.3 Criticality SPTL
- 6.17 Flood mitigation

6.1 Customer satisfaction

Purpose and use by Ofgem	The purpose of this table is to collect the results from surveys that the transmission owners are required to carry out under the customer/stakeholder satisfaction output. The output has two financial incentive elements. One is a stakeholder engagement discretionary reward. The second is a deterministic financial incentive rewarding or penalising the transmission owners for performance as appraised by its customers and/or stakeholders through survey. This table relates to this second element reflecting survey results and supporting information. At this stage the supporting information is work in progress. This is information that will provide us with confidence that the overall reward through this financial incentive is appropriate.	
Guidance on completing this worksheet	 To complete the worksheet each TO is required to include: baseline level of performance (as specified in Special Licence Condition ETC 24) mean, 25% and 75% quartile survey scores; for National Grid this includes both the survey of customers and the equivalent scores for the survey of stakeholders; 	

⁷ NGET and NGGT shall include results from both a survey of customers and a survey of stakeholders. SPTL and SHE TRANSMISSION shall survey stakeholders.

 for SHE Transmission and SPTL data is also reported of the key performance indicators and stakeholder exter assurance elements. 	

None

6.2 Environment Business carbon footprint (BCF)

Purpose and use by Ofgem	The purpose of this table is to collect information on the licensee's Business Carbon Footprint (BCF) (in tonnes of CO ₂ equivalent) in order for us to review the carbon footprint across all the TOs. This information may be published in future as part of a report on TOs performance across the RIIO-T1 outputs.	
Guidance on completing this worksheet	CO ₂ equivalent emissions arising from losses on the licensee's transmission system are included in the table since to provide an annual estimate of total BCF that will align with other environmental reports produced by the company.	
	The associated commentary must contain the methodology used, including detailed emission tables for each of the sections below, and further information on the methodology adopted.	
	As stated below, a licensee can select the 12 month period that it intends to use as its confirmed reporting year. This confirmed reporting year must have prior approval from Ofgem. We expect the confirmed reporting year to align with the statutory or regulatory accounts.	
General principles of the reporting methodology	principles of the Greenhouse Gas Protocol ("GHG Protocol").	
	 Relevant: the inventory must reflect the substance and economic reality of the company's business relationships, not merely its legal form. 	
	 Complete: all relevant emission sources must be included. 	
	 Consistent: accounting approaches, inventory boundary and calculation methodology must be applied consistently over time. 	
	 Transparent: information on the processes, procedures, assumptions and limitations of the BCF reporting must be disclosed in a clear, factual, neutral and understandable 	

manner, enabling internal and external verifiers to attest to its credibility.

 Accurate: GHG measurements, estimates, or calculations must be systemically neither over nor under the actual emissions value, as far as can be judged, and that uncertainties be reduced as far as practicable.

Reporting boundaries

Licensee's must report on all Scope 1 and Scope 2 emissions (and a subset of Scope 3 emissions, as detailed below) on an "operational control" basis, ie report all emissions from operations on which the TO has full authority to introduce and implement its operating policy.

Licensees must also report on a subset of Scope 3 emissions (business travel and external contractors), to ensure that the reporting captures all of the emissions arising from the development and operation of the licensee's Transmission System, regardless of the legal entity carrying out each activity. According to this, we consider it valuable to focus on contractors emissions relating to the operational transport fleet and mobile power plants.

A licensee that forms part of a larger corporate group must provide a brief introduction outlining the structure of the group. The commentary must detail which organisations are considered to be within the reporting boundary for the purpose of this exercise.

Apportionment of emissions across a corporate group to the licensee's business units must be made clear in the commentary.

Contractors

The exclusion of any contractors must be justified and any thresholds used for exclusion must be stated in the commentary.

The commentary must also include an indication of what proportion of contractors have been excluded. This figure could be calculated based on contract value.

As far as possible, the licensee must try to ensure that data provided from different contractors is based on consistent assumptions.

Detailed reporting requirements

Licensees are given flexibility to set their own standards for:

- Reporting year we expect this generally to align with the statutory or regulatory accounts.
- The use of estimates rather than direct measurement,

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and any exclusion from the reporting based on (lack of) materiality considerations. Any assumptions used to make estimates must be included in the commentary. It is anticipated that data will need to be estimated under two scenarios:

- o when the type of emissions is not measured
- when there is measurement data, but an estimate is required as the data is not at the same level of granularity as required by the summary BCF worksheet.

As a general principle, the licensees must focus more on the first type of estimation.

The commentary must include data tables for each area of emissions (ideally at the same level of granularity as the Defra conversion factors) containing the following information:

- the licensee in question
- the level of emissions (in tonnes ofCO₂ equivalent (tCO₂e)
- the data source and collection process
- the relevant physical units e.g. miles
- the emission conversion factor used
- the source of the emission conversion factor (this shall be Defra unless there is a compelling case for using another conversion factor)
- the Scope of the emissions ie Scope 1, 2 or 3
- whether the emissions have been measured or estimated
- any tools used in the calculation
- whether the emissions stem from contractors.

The commentary must also include details of any auditing a licensee has performed to verify their emissions data.

Apportionment

When the emissions data is not available for the individual licensee then the apportionment factor used must be transparent. The basis for calculating the apportionment factor must also be included in the commentary.

We expect that the basis for calculating the apportionment factor will vary according to the area of emissions. The table below gives the preferred basis for determining the apportionment factor. Other methodologies can be used, but

they must be justified.

Table 7.1: Apportionment factor determination

Area of emissions	Basis for apportionment factor
Building usage	Head count
Operational Transport	Network length or km ² of the transmission licence area.
Business transport	Head count, or like operational transport
Substations usage	Number of substations

Buildings energy usage

Emissions for electricity usage in buildings must be converted using carbon equivalent factor. The licensee must state in its methodology (included in the commentary) the conversion factor it has used and why it considers this to be appropriate.

Natural Gas, Diesel and other fuels are all categorised as fuel combustion and must be converted to tCO2e on either a Gross Calorific Value (Gross CV) or Net Calorific Value (Net CV) basis. We expect that this element of the chosen approach is clearly stated in the commentary and that this is consistently applied over time.

Electricity usage in substations must be captured under "Buildings energy usage". All substation consumption must be treated as energy supplied rather than losses. It is recognised that not all substations will be metered; rather, it is expected that licensees will in time register all substation as unmetered supplies and develop a common method for estimating consumption. Each licensee must include in its methodology (included in the commentary) the basis on which energy supplied has been assessed. Estimation could be based on a bottom-up approach, whereby the substation energy usage is split into estimates of its constituent parts, such as heating and lighting etc.

Transport

Defra guidelines provide for a range of emission conversion factors for transport means, with the aim to provide the best possible estimate of emissions from the vehicle portfolio owned and/or operated by the company. The reporting must, as far as reasonably practicable, use the full range of emission conversion factors available (as applicable to the range of means of transport actually used by the company).

Defra allows for transport to be entered in terms of both mileage and fuel consumption. Reporting must be based upon mileage, using conversion factors at the greatest level of disaggregation that is reasonably practicable. Reporting can be based on fuel consumption only where detailed and reliable

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data is available, e.g. through fuel cards.

Business travel by road can be entered in terms of company car and private car. The GHG Protocol defines company cars as scope 1 and private car use for business purposes as scope 3.

In cases where emission factors for specific transport means are not available (we are aware of this issue for helicopters, but there may be some other instances) the equivalent tonnes of carbon dioxide (tCO_2e) must be estimated and summed to the closest means of transport (e.g. "air" for helicopters). The methodology and assumptions used for estimating/measuring these emissions must be included in the commentary.

Operational Transport is the transportation (often a fleet of vehicles) used in the day to day operation of the business – ie in the inspection and maintenance of the network.

Business Transport is that undertaken by staff travelling to locations that are other than their normal place of work or moving between sites for purposes such as meetings.

Fugitive emissions

This category caters for GHG emissions from a range of gases that may be relevant to the TO business. We anticipate that this will mainly include SF_6 emissions, but other gases may be included (e.g. HFC from air conditioning). SF_6 emissions must be reported in accordance with ENA-ER S38, using Defra conversion factors.

The commentary must identify which fugitive emissions have not been calculated or estimated.

Fuel combustion (non-building)

This is to cover for non-building fuel usage, such as mobile plants and the stand-by diesel mobile generators that are deployed from time to time in response to planned outages or faults. Defra emissions factors must be used. All mobile plant and generation used by the licensee, related and affiliate undertakings, contactors and sub-contractors must be included in so far as it is reasonably practicable. The methodology must describe the degree of estimation, and decisions to exclude any sources of emissions, applied.

Losses

This is to consider TOs responsibility towards losses as a Scope 2 emission, using the Defra conversion factor "Grid Rolling Average" for electricity losses. Substation electricity usage must be excluded from the reported emissions for

network losses, so that it is not double-counted.
As explained above, an estimate of losses is required because it is important for Ofgem to have an indication of the overall BCF for a company and across all TOs.

None	

6.3 Reliability

Purpose and use by Ofgem	The purpose of this table is to collect information in relation to incidents on the licensee's transmission system and the volume of unsupplied energy that is a consequence of these interruptions for the calculation of the licensee's Energy Not Supplied (ENS) incentive.
Guidance on completing this worksheet	To complete the worksheet each TO is required to give details of:
worksneet	 the total number of transmission system incidents that occurred during the year, , the number of events excluded from the definition of incentivised loss of supply events, the number of incentivised loss of supply events, and the number of incidents categorised as exceptional events
	 the volume of energy that was not supplied to customers as a result of the total number of incidents, the volume of energy not supplied for incidents excluded from the definition of incentivised loss of supply events, the volume of energy not supplied for incidents due to Incentivised Loss of Supply Events, and the volume of ENS for incidents categorised as exceptional events.
	Exceptional events: The licensee should detail separately: (i) the number of incidents and volume of unsupplied energy for incidents that the Authority has determined to be exceptional events under Part C of Special Condition 3C (ii) the number of incidents and volume of unsupplied energy for incidents that it views as exceptional events but the Authority has yet to make a determination under Part C of Special Condition 3C.
	SHE Transmission has a bespoke element to its reliability output. This involves direct compensation to its customers under specified circumstances. The table for this company will include the relevant additional detail.

Specific d	lefinitions	for	this	worksheet
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Ν	one	

6.4 SHE Transmission and SPTL Timely connections

Purpose and use by Ofgem	This table applies only to SPTL and SHE Transmission as National Grid do not have the same financial incentive and the overall reporting in this area is undertaken separately under previously existing licence requirements. The purpose of this table is to summarise the performance of the TOs in delivering timely connections to the network. The data will support the timely connections output based on delivery against licence obligations and through this the obligations in the SO:TO Code (STC)).
Guidance on completing this worksheet	SPTL and/or SHE Transmission will have to identify the total number of connections by category of generation type where it made an offer. It will also need to indicate where the this was done within the timing required by the obligation contained in the SO:TO Code referred to in D4A of their licence conditions. To enrich our information, and in part to inform the work to develop RIIO-T2 incentives in this area, SPTL and SHE Transmission will also need to report on whether further amendment was made following the delivery of the connection offer. Such amendment is not necessarily a sign of a problem. A commentary will be sought to provide the reason for the change.

Specific definitions for this worksheet

l None	

6.5 SF₆ emissions

Purpose and use by Ofgem	The purpose of this table is to collect information in relation to emissions of sulphur hexafluoride from assets comprising part of the licensee's transmission system for the annual calculation of the licensee's SF_6 incentive specified in Special Condition 3E (Incentive in Respect of Sulphur Hexafluoride (SF6) Gas Emissions).
Guidance on completing this worksheet	 To complete the worksheet each TO is required to input details of: the total amount of SF₆ gas (in kilograms) contained in assets forming the licensee's transmission system at the start of the year (or for SHE Transmission the agreed baseline set out in Final Proposals) measured in

accordance with the licensee's methodology statement.
 the additions and disposals of SF₆ gas (in kilograms) in assets comprising part the licensee's transmission system during the year (or for SHE Transmission the additions comprising part of SWW Outputs delivered in the reporting year).
 the total emissions of SF₆ gas over the Reporting Year as calculated in accordance with the licensee's methodology statement
 the amount of any SF₆ emissions that the Authority has directed is the result of an Exceptional Event as defined in Special Condition 3E (Incentive in Respect of Sulphur Hexafluoride (SF₆) Gas Emissions).
 The conversion factor to be used throughout RIIO-ED1 to quantify the carbon dioxide equivalent emissions from sulphur hexafluoride emissions is the emissions factor as published by the IPCC in its Second Assessment Report, Climate Change 1995⁸. This has the value of 23.9 kg of SF₆ to tonnes of CO₂.

Niero	
None	

6.6 Designated area visual amenity outputs for existing transmission infrastructure

Purpose and use by Ofgem	The purpose of this table is to collect information on the delivery of mitigation measures to improve the visual amenity of existing transmission infrastructure in Areas of Outstanding Natural Beauty, National Parks and National Scenic Areas ("designated areas").
Guidance on completing this worksheet	In the first reporting year of the RIIO-T1 period the TO is required to input data on the amount of existing transmission infrastructure owned by the TO in designated areas as of 1 April 2013. Data on existing transmission overhead lines should be given in circuit kilometres by circuit operating voltage. Existing transmission substations should be identified consistently with the definition of a substation contained in the notes accompanying table 4.1. Visual Amenity (VA) Outputs should be added to the second

⁸ The Science of Climate Change. Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change. (Eds. J. T Houghton et al, 1996).

table in the worksheet when the Authority has approved allowed expenditure for the delivery of these. The TO should input data on the mitigation measures that are specified as a VA Outputs. For underground cabling the section lengths are to be measured as the central core lengths between cable sealing end compounds or cable entry bushings per circuit, and shall be rounded to the nearest 0.1km. If two or more sections of underground cabling are required in a circuit, these sections shall be treated as discrete lengths. The TO should input an additional line in the table for any scheme which delivers two or more discrete cables that fall under the same category (cell) (e.g. 2 discrete cables under 3km in length under 1x<2500mm²).

The TO should include in its narrative any differences between the approved VA Output, and what is actually delivered.

This table should only pick up project specific costs. Costs relating to feasibility studies or other pre-construction costs unless capitalised should be recorded as part of opex.

Specific definitions for this worksheet

None

6.7 Baseline Wider and Works Strategic Wider Works (SWW) outputs

Purpose and use by Ofgem	The purpose of this table is to collect information on the licensee's progress in the construction and completion of Baseline Wider Works set out in Special Condition 6I (Specification of Baseline Wider Works Outputs and Strategic Wider Works Outputs and Assessment of Allowed Expenditure) in the licensee's Electricity Transmission Licence that are approved for funding by the Authority during the RIIO-T1 period.
Guidance on completing this worksheet	All BWW outputs should be entered into the table at the start of the price control.
	When an new SWW output is approved and appears in Sp Condition 6I of the licence, the licensee should enter the SWW output stating the boundary it will affect, the name of the project and also the amount of additional transmission transfer capability (in MW) that has been agreed as the SWW output. Every year the licensee should report whether or not the project is progressing in line with the project milestones for delivering the project by the scheduled delivery date that is set out in the licence. For SWW outputs the TO will be required to project a project delivery plan setting out the key dates in its works programme for making the new output

None	

6.8 SWW Pre-construction deliverables

Purpose and use by Ofgem	The purpose of this table is to collection information on the status of various pre-construction engineering activities in relation to a prospective SWW scheme.
Guidance on completing this worksheet	The licensee should include more information in its narrative if it has made a planning application to specify the stage of the application and the expected timescales for a decision from the relevant planning authority.

Specific definitions for this worksheet

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6.9 SHE Transmission local generation volume driver

Purpose and use by Ofgem	The purpose of this table is to collect information on forecast and delivered schemes that are subject to SHE Transmission's generation connection volume driver specified in Special Condition 6F of SHE Transmission's Electricity Transmission Licence. This information will allow us to adjust the baseline to reflect the forecast and actual capability delivered.
Guidance on completing this worksheet	In the worksheet there are four tables. Two tables to collect scheme specific data for Completed Connections SHE Transmission has delivered and Forecast Connections SHE Transmission expects to have delivered in four years time. The two smaller tables collect information on the cumulative connection capacity that has been delivered since the start of the price control or is expected to be delivered in future years of the price control period.
Completed Connections table	Scheme name: The scheme name and references should be detailed in such a way that will allow us to cross reference information in table 4.2.
	Scheme reference: SHE Transmission should use the same

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unique scheme reference within the output tables and the cost information tables (ie table 4.2).

Year of delivery: The year of delivery should be the year that the scheme has been commissioned.

Atypical scheme: The TO should specify for each scheme whether or not the delivered connections capacity is an atypical scheme (choosing either 'y' or 'n' in column E) as per the definitions of atypical generation connections specified in SHE Transmission's Final Proposals.

Generation Connections: The TO should input into the Completed Connections table only data for generation connections capacity it has delivered in the reporting year. The TO should input the delivered connection capacity associated with sole use (MW) and shared use (MVA) infrastructure works.

Actual expenditure for atypical connections (2009/10 prices): Input data on the total delivery costs of atypical projects in column H in 2009/10 price base. SHE Transmission should explain the methodology used to calculate these unit cost allowances as part of the commentary tables supporting the RIGs tables.

Four-period Ahead Forecast Connections table

Scheme name and scheme reference: Provide details of unique identifier for project.

Four-period ahead delivery detail: Specify the four-period ahead delivery.

Atypical scheme: The TO should specify for each scheme whether or not the forecast connections capacity to be delivered will be an atypical scheme (choosing either 'y' or 'n' in column E) as per the definitions of atypical generation connections specified in SHE Transmission's Final Proposals.

Generation Connections: The TO should input the amount of forecast generation connections capacity it expects to deliver where these are backed with a signed TOCA. The TO should input the connection capacity associated with sole use (MW) and shared use (MVA) infrastructure works in columns F and G respectively.

Forecast expenditure for atypical connections (2009/10 prices): TO to input forecast total delivery costs of atypical projects in column H in 2009/10 price base. SHE Transmission should explain the methodology used to calculate these unit

Delivered Cumulative Connection Capacity table	cost allowances as part of the commentary tables supporting the RIGs tables. The TO is to input the total amount of delivered connection capacity since 1 April 2013 before the start of the reporting year for each of the four categories listed in this table. The values in the grey boxes are automatically calculated.
Four-period ahead Cumulative Connection Capacity table	The TO is to input in the current reporting year its four period ahead forecast of cumulative connection capacity since 1 April 2013 for each of the four categories listed in this table. For the avoidance of doubt, in each reporting year the TO should input a value for each generation connection category into the column associate with that reporting year. For example, in 2013, SHE Transmission will only complete the column headed 2013 for 2017.

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6.10 SPTL Local generation connections volume driver – sole use

Purpose and use by Ofgem	The purpose of this table is to collect information on delivered sole use generation connection works that are subject to SPTL's generation connection volume driver specified in Special Condition 6F of SPTL's Transmission's Electricity Transmission Licence. This information will allow us to adjust the baseline to reflect the actual connection capacity delivered.
Guidance on completing this worksheet	
Completed Connections table	Scheme name: The scheme name and references should be detailed in such a way that will allow us to cross reference information in table 4.2.
	Scheme reference: SPTL should use the same unique scheme reference within the output tables and the cost information tables (ie table 4.2).
	Year of delivery: The year of delivery should be the year that

	the scheme has been commissioned.
	Generation Connections: The TO should input into the Completed Connections table only data for generation connections capacity it has delivered in the reporting year. The TO should input the delivered connection capacity associated with sole use (MW) infrastructure works
Delivered Cumulative Connection Capacity table	The TO is to input the total amount of delivered connection capacity since 1 April 2013 before the start of the reporting year for sole use connections in this table. The values in the grey boxes are automatically calculated.

Specific definitions for this worksheet	
None	

6.10 SPTL Local generation connections volume driver – shared use

Purpose and use by Ofgem	The purpose of this table is to collect information on delivered shared use generation connection works (collector schemes) that are subject to SPTL's generation connection volume driver specified in Special Condition 6F of SPTL's Transmission's Electricity Transmission Licence. This information will allow us to adjust your baseline to reflect the actual connection capacity delivered.
Guidance on completing this worksheet	
Completed Connections table	Scheme name: The scheme name and references should be detailed in such a way that will allow us to cross reference information in table 4.2.
	Scheme reference: SPTL should use the same unique scheme reference within the output tables and the cost information tables (ie table 4.2).
	Year of delivery: The year of delivery should be the year that the scheme has been commissioned.
	Installed Asset Rating: The TO should input data for shared use connections capacity it has delivered in the reporting year. The TO should input the delivered connection capacity associated with shared use (MVA) infrastructure works into column E. The TO should complete the table with relevant scheme information by inputting data on the number of new collector substations, lengths of associated overhead line and

	volumes of platform civil works.
Connection Capacity	The TO is to input the total amount of delivered connection capacity from shared used connections since 1 April 2013 before the start of the reporting year in this table. The values in the grey boxes are automatically calculated.

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6.11 NGET wider works volume driver

Purpose and use by Ofgem	The purpose of this table is to collect information required to operate the Wider Works volume driver set out in Special Condition 6J of NGET's Electricity Transmission Licence.
Guidance on completing this worksheet	For each year of the price control NGET should input data into the table for schemes completed in that year that were also determined by NGET through the application of its Network Development Policy (NDP) process. In the sixth year (2019) of the price control NGET should provide, in addition, forecasts for the Wider Works Outputs it will deliver in the first two years of the next price control period, as determined through its NDP. For the avoidance of doubt, data on Strategic Wider Works Outputs or Baseline Wider Works Outputs specified in Special Condition 6I of NGET's Transmission Licence should not be included in this table. Lead Identifier: NGET should use the same unique scheme name within the output tables and the cost information tables (ie table 4.2). NGET should provide unit cost data for Boundary B14e and EC5 only. This unit cost should be provided in 2009/10 prices, in line with RIIO-T1 Final Proposals. NGET should explain the methodology used to calculate these unit cost allowances as part of the commentary supporting the RIGs tables.
	Transfer capability increase (MW): For each scheme NGET should set out the increase in boundary transfer capability provided by the reinforcement on each boundary affected. The change in capability for each boundary reported by the licensee should be calculated according to the prevailing security standards and verified according to the licensee's methodology set out in its NDP.
	Total increase in boundary transfer capability after 1 April

2013: For each scheme NGET should set out the total amount of capability that has been added to the boundary, inclusive of the scheme from the start of the price control period. This information will allow us to determine when baseline capability has been delivered and a new unit cost is triggered for additional capability delivered.

NGET should provide the results in its commentary for delivered WW Outputs from applying the verification methodology set out in its Network Development Policy.

Specific definitions for this worksheet

None	

6.12 NGET planning requirements

Purpose and use by Ofgem	The purpose of this table is to collect scheme output information for DNO schemes and undergrounding provisions that are required as part of the planning consent process for delivering Wider Works Outputs only. For the avoidance of doubt, data on undergrounding works for local generation or local demand connection schemes should not be included in this table but instead specified in tables 6.13 and 6.14.
Guidance on completing this worksheet	Undergrounding of cables table
Worksheet	This table will contain data for cable outputs (actual and forecast) in each reporting year that are the result of planning consent requirements. It should not include cables that are subject to any other volume driver such as local generation or demand.
	Data on all forecast and actual cable outputs need to be retained for all reporting years within RIIO-T1 to operate the volume driver set out in Special Condition 6K of NGET's Electricity Transmission Licence (because the formula derives allowed expenditure for all years for each year it operates).
	Lead Identifier: NGET should use the same unique scheme name within the output tables and the cost information tables (ie table 4.2).
	Forecast year: This is used to determine the profile of expenditure that NGET will receive before the output is delivered.
	Actual year: NGET should only fill this in when the scheme

has been completed during the reporting year.

NGET should add an additional line in the table for any scheme which delivers two or more discrete cables that fall under the same category (cell) (e.g. 2 discrete cables under 3 km in route length under $1 \times 2500 \text{mm2}$). The cable volume should be input in circuit km to the nearest 0.1 circuit km.

NGET should identify in its commentary any differences between NGET's forecast of outputs and what was actually delivered.

DNO Mitigation table

This table will contain data for DNO mitigation outputs (actual and forecast) in each reporting year. Data on all forecast and actual DNO outputs need to be retained for all reporting years within RIIO-T1 to operate the volume driver set out in Special Condition 6K of NGET's Electricity Transmission Licence.

Lead Identifier: NGET should use the same unique scheme name within the output tables and the cost information tables (ie table 4.2).

Forecast year: This is used to determine any expenditure that NGET will receive before the output is delivered.

Actual year: NGET should only fill this in when the scheme has been completed during the reporting year.

Undergrounding: NGET should input the number of circuit km of overhead lines that have been undergrounded for each scheme, to the nearest 0.1 circuit km.

OHL s/c: NGET should input the number of new circuit km of single circuit overhead lines constructed for each scheme, to the nearest circuit km.

OHL d/c: NGET should input the number of new circuit km of double circuit overhead lines co structured for each scheme, to the nearest circuit km.

Tower dismantling: NGET should input the number of Towers dismantled for each scheme.

Bays: NGET should input the number of new substation bays

that formed part of each scheme.

None	

6.13 NGET local generation volume driver

Purpose and use by Ofgem	The purpose of this table is to collect information on the actual outputs and expenditure associated with the local generation (shared use) volume driver set out in Special Condition 6F of NGET's Electricity Transmission Licence. This information will allow us to adjust the licensee's baseline to reflect the actual outputs delivered.
Guidance on completing this worksheet	Information should be provided for generation connections that have been completed during the Reporting Year. In the sixth year (2019), NGET should also provide forecasts for the first two years (2022 & 2023) in RIIO-T2.
	NGET should highlight in the commentary where some of the generation and interconnector connections related to the scheme are delivered after the work (and expenditure) for the scheme has been completed. NGET should provide information on the relevant generation and interconnector capacity for the Reporting Year that the project started to pay for capacity.
	For the avoidance of doubt, where a directly connected generator, embedded generator in RD zone 2 or 22 or interconnector has an increase in system access capacity compared to the prior year, this should be included in the table listing even when there is no associated expenditure or expenditure completed in a prior reporting year.
	NGET should report the number of circuit kilometres of overhead lines delivered as part of a generation connection scheme. This should be reported when all the work to deliver generation connections have been completed and some of the generation connections in relation to this work have been connected during the reporting year.
	NGET should outline all discrete underground cable lengths associated with a scheme delivering a generation connection. NGET should add an additional line in the table for any scheme which delivers two or more discrete cables that fall under the same category (cell) (e.g. 2 discrete cables under 3 route km in length under 1x<2500mm2). This should be reported when the work to deliver the relevant generation or interconnector capacity have been completed and some of the

	generation or interconnector capacity in relation to this work
	have been provided during the reporting year.
	Lead Identifier: NGET should use the same unique scheme name within the output tables and the cost information tables (ie table 4.2).
	RD Zone: NGET should outline which RD zone the scheme is associated with as per the zones set out in appendix 1 to Special Condition 6F.
	Embedded Gen RD Zone (Y/N): NGET should indicate whether the scheme was associated with embedded generation for either RD zone North East (2) & Mid-Wales (22).
User terminated generation connection works -	Lead Identifier: NGET should use the same unique scheme name within the output tables and the cost information tables
total expenditure table and termination receipts table	NGET should report in the total expenditure table the amount of expenditure it has incurred on Generation Connection works for a specific scheme where the user has terminated the relevant bilateral agreements prior to commencing use of the Generation Connection.
	NGET should report the amount of termination receipts received in the form of revenues or capital contributions, for the Generation Connection.
	Expenditure and receipts should be provided on a 2009/10 cost basis.

Generation connections	As defined in the licensee's Electricity Transmission Licence.
User terminated generation connections works total expenditure	See definition in the licensee's Electricity Transmission Licence for TPG_n .
User terminated generation connections works expenditure receipts	See definition in the licensee's Electricity Transmission Licence for $TPRG_n$.

6.14 NGET local demand volume driver

Purpose and use by	The purpose of this table is to collect information on the
Ofgem	actual outputs and expenditure associated with the local

	demand volume driver set out in Special Condition 6L of NGET's Electricity Transmission Licence. This information will allow us to adjust the licensee's baseline to reflect the actual outputs delivered.
Guidance on completing this worksheet	Information should be provided for demand related outputs that have been completed during the reported year apart from in the sixth year (2019), NGET should also provide forecasts for the first two years (2022 & 2023) in RIIO-T2.
	Lead Identifier: NGET should use the same unique scheme name within the output tables and the cost information tables (ie table 4.2).
	SGTs: NGET should state the number of new SGT's associated with a demand-related scheme that have been completed during the reporting year.
	Overhead Lines: NGET should outline the number of circuit kilometres of overhead lines delivered as part of the scheme. This should only be reported when all the work to deliver generation connection has been completed and the SGT is available for load during the reporting year.
	Undergrounding: NGET should report all discrete cable lengths associated with the scheme. NGET should add an additional line in the table for any scheme which delivers two or more discrete cables that fall under the same category (cell) (e.g. 2 discrete cables under 3 route km in length under 1x<2500mm2). This should be reported when all the work to deliver demand-related connections has been completed and some of the demand-related connections in relation to this work have been available for load during the reporting year.
User terminated demand works - total expenditure table and termination receipts table	Lead Identifier: NGET should use the same unique scheme name within the output tables and the cost information tables
	NGET should report in the total expenditure table the expenditure it has incurred on demand works for a specific scheme where the user has terminated the relevant bilateral agreements prior to commencing use of the demand connection.
	NGET should report the amount of termination receipts received in the form of revenues or capital contributions, for demand works.
	Expenditure and receipts should be provided on a 2009/10

cost basis.

Specific definitions for this worksheet

User terminated demand works total expenditure	See definition in the licensee's Electricity Transmission Licence for $\mbox{TPD}_{\mbox{\scriptsize n}}.$
User terminated demand works expenditure receipts	See definition in the licensee's Electricity Transmission Licence for $TPRD_n.$

6.15.1 Network Output Measures (NOMS) Asset Health

Purpose and use by Ofgem	The purpose of this table is to collect information on current asset health to assess performance against business plans and reported expenditure.
Guidance on completing this worksheet	Input information as indicated by the yellow shaded boxes on the table.
	The split between Asset health categories 4a and 4b only applies to NGET. The Scottish TOs should populate all assets with an Asset Health of 4 under AH4 and leave AH4a & b blank.
	Each TO should submit their Network Output Measure Methodology, which should meet the conditions set out under Special Licence Condition 2L. The TO should specify whether the methodology has been updated during the reporting year. Where the output measure has been updated we would expect the TO to fill in two tables 6.15.1, one table using the old methodology and one table with the new methodology. The TO should also indicate what impact it would have on its NOM targets.
	The table should take into account the cumulative impact of all non-load related investment but exclude the cumulative impact of load-related investment up to the end of the Reporting Year. This will require licensees to start from the actual replacement priority of assets at the end of the Reporting Year and then add back in assets which were replaced as part of load-related schemes as though they had not been replaced.
	The TOs should specify whether it has carried out a reassessment of assets health or criticality over the reporting year. If a re-assessment has taken place the TO should specify what impact it has had over the movements in the different health or criticality classes.

Charific definitions for this wedgebook	

Specific definitions for this worksheet

None

6.15.2 NOMS Replacement Priority

Purpose and use by Ofgem	The purpose of this table is to collect information on replacement priorities to assess performance against business plans and reported expenditure.
Guidance on completing this worksheet	Input information as indicated by the yellow shaded boxes on the table.
	Licensees are to provide their matrix of replacement priorities based on different combinations of asset health and criticality, as agreed as part of the Network Output Measures Methodology.
	Replacement priority tables are to be provided for the following dates: • As at 31 March of the Reporting Year; • As at 31 March 2021.
	The replacement priority tables are to take into account the cumulative impact of all non-load related investment but exclude the cumulative impact of load-related investment up to the end of the Reporting Year. This will require licensees to start from the actual replacement priority of assets at the end of the Reporting Year and then add back in assets which were replaced as part of load-related schemes as though they had not been replaced.

Specific definitions for this worksheet

None

6.16.1 Criticality substations

Purpose and use by Ofgem	The purpose of this table is to collect criticality information on substation assets as part of network output measures.
	Please note that as this table is security-sensitive it should be submitted separately from the main pack.
Guidance on completing this	Input information as indicated by the yellow shaded boxes on

worksheet	the table.

Specific definitions for this worksheet

None	

6.16.2 Criticality circuits

Purpose and use by Ofgem	The purpose of this table is to collect criticality information on circuits as part of network output measures.
	Please note that as this table is security-sensitive it should be submitted separately from the main pack.
Guidance on completing this worksheet	Input information as indicated by the yellow shaded boxes on the table.

Specific definitions for this worksheet

None	

6.16.3 Criticality SPTL

Purpose and use by Ofgem	The purpose of this table is to collect system criticality information as part of network output measures.
	Please note that as this table is security-sensitive it should be submitted separately from the main pack.
Guidance on completing this worksheet	Input information as indicated by the yellow shaded boxes on the table.

Specific definitions for this worksheet

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l None	
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6.17 Flood mitigation

Purpose and use by Ofgem	The purpose of this table is to summarise work being undertaken to mitigate the risk of substation flooding. Tos must input the number of assets in each risk category which have had, or are forecast to have, flood mitigation work carried out. We will share this information with DECC and anticipate that it will align with data reported separately by the companies to DECC.
Guidance on completing this worksheet	The works specified in this table should align with the schemes captured under 'Weather Related Resilience' in table 4.3, this means that the TO's are only required to report on sites where work has been undertaken in the reporting year. Critical customers are those customers that provide a vital service to the community, where the loss of supply to these sites is likely to lead to mass evacuation, and includes major water, sewage and land drainage sites (Ref. Electricity Supply Emergency Code). The probability of flooding, as identified as part of the ENA Substation Resilience to Flooding Task Group, is to be measured as a "return period" in years to the nearest whole number, ie the longest period in years that will pass without the site flooding. For example, if there is a risk of a substation flooding once in 20 years, this must be categorised as a flood risk of 1/20 (to be measured to the nearest whole number). Where this level of analysis is not available and/or the risk has been identified from the Environment Agency/Scottish Environment Protection Agency indicative flood maps, enter 1/100 for the 1/100 years contour, 1/200 for the 1/200 years contour or 1/1000 for the 1/1000 years contour. (These categories must be mutually exclusive, e.g. substations at 1/100 years risk must not also be categorised as 1/200 years or 1/1000 years risk must not also be categorised as 1/200 years or 1/1000 years risk of flooding bands should be used: 1/100, 1/200 & 1/1000, where a risk of 1/100 as 1/200 and 1/201 to 1/1000 as 1/1000.

Specific definitions for this worksheet

None	

9. Instructions for completing the revenue reporting worksheets

Chapter Summary

The revenue return pack is provided in a separate workbook.

This chapter sets out the purpose of the revenue reporting regulatory instructions and guidance (RIGs).

The RIGs will take effect for the detailed revenue return due by July 2014 (relating to the relevant Formula year 2013-14) and subsequent returns up to 2020-21. The revenue reporting RIGs have been prepared and introduced pursuant to Special condition (SC) 3A (Restriction of Transmission Network Revenue) and 4A (Restriction of System Operator Internal Revenue). Each TO will receive a template so that the data is collected on a conformed basis.

For the avoidance of doubt the RIGs are subordinate to those license conditions that may apply to the determination of allowed revenues or which contain associated reporting obligations. It will not change, alter or amend any definition or obligation contained within the electricity transmission licence and, in the event of any inconsistency between the licence conditions and these guidance, the licence conditions will take precedence.

Introduction

The purpose of SC3A is as follows:

- (a) to establish the charging restrictions that determine the level of Maximum Revenue that may be recovered by the licensee through Transmission Network Charges; and
- (b) to set out the obligations of the licensee in respect of those charging restrictions.

The purpose of SC4A is as follows:

- (a) to establish the charging restrictions that determine the level of allowed revenue that may be recovered by the licensee, associated with its internal costs in relation to balancing services activity; and
- (b) to set out the obligations of the licensee in respect of those charging restrictions.

The Revenue return contains various worksheets used to calculate the Maximum Revenue that the TO or SO can claim.

Inputs required by the licensees are made to the Input page sheet. The inputs required are all as defined in the appropriate licence condition and are not repeated here.

Overview of worksheets

The main worksheets included within this chapter are:

Version Log Sheet

The log sheet is for information only. It is used to document any version changes and significant changes made to the revenue return by OFGEM.

Licence Condition Values

This worksheet contains the key licence parameters required to calculate allowed revenue. It is pre-filled by OFGEM using values quoted in the licence conditions. The data is derived principally from the annexes to Special Conditions 3A to 3L of the TOs special licence conditions (4A to AA5J for the SO). These values are used in the formulae to derive the license terms.

Input Page

The light yellow cells represent the data that TOs (or SO) need to complete for each Formula year. Macroeconomic data, such as the specified interest rate and RPI, will be pre-filled by OFGEM.

Excluded service revenues/ De minimis

This sheet details the revenue received by the licensee from excluded services or for de minimis activities.

Reconciliation to statutory accounts

The purpose of this sheet is to reconcile the amount shown in the revenue return pack to the amount in the regulatory accounts. The revenue from the regulatory accounts is required to be input in this sheet.

10. Supporting Commentary

Chapter Summary

Introduction

[The commentary and annual reporting to be developed between Ofgem and the TOs]

Appendices

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Appendix 1 – Glossary and Definitions

- 1.1. The purpose of this appendix is to provide definition of the terms included in these instructions and in the associated worksheets (with the exception of Totex which is defined in Appendix 2).
- 1.2. Most definitions apply to specific tables and therefore are included as part of the table instructions for completion, this appendix provides definitions that cover more than one table and more general definitions. Any word or expressions used in the Utilities Act 2000, Electricity Act 1989, the Energy Act 2004, or standard or special licence conditions of the electricity transmission licence shall have the same meaning when used in these rules, similarly for standard accounting terms, IFRS/IAS and/or UK GAAP and Companies Act 2006 definitions should be applied.
- 1.3. In the circumstance where no definition is given the licensee should include in explanatory notes details of the treatment it has applied and inform The Authority of the omission. Where a definition set out in this appendix is not the same as that applied by a licensee for other purposes, the definition set out herein must be used in the preparation of the RIGs templates.
- 1.4. Except where the context otherwise requires, any reference in this appendix or in the RIGs to a numbered standard or special condition (with or without a letter) or Schedule is a reference to the standard or special condition (with or without a letter) or Schedule bearing that number in the electricity transmission licence, and any reference to a numbered paragraph (with or without a letter) within such a standard or special condition is a reference to the paragraph bearing that number in the standard or special condition or Schedule of the electricity transmission licence in which the reference occurs, and reference to a Section is a reference to that Section in the standard or special conditions of the electricity transmission licence .
- 1.5. Where terms are defined within the licence conditions (standard or special) or other documents approved by the Authority (such as the NOMs Methodology Statement), they are not replicated here and the user should refer to the licence condition or such other document for these definitions.

Α

Accounting Costs

Costs as per statutory or regulatory accounts before any adjustments for non controllable costs and atypical, provisions etc.

Accruals and Prepayments

For the purpose of determining what amounts should be excluded as non cash items. These are only those items that are not incurred as part of the ordinary level of business activities and would be atypical. Normal business activities include, normal trade accruals and prepayments and holiday pay provisions.

Guidance: Version 1.3

Affiliate IDNO

An independent distribution network operator owned by the group and operating within the group's own electricity distribution network area

Annual iteration Process

The annual iteration process is the process of annually updating the variable (blue box) values in the price control financial model and running the model in order to provide updated MOD and SOMOD values.

C

Cash Controllable Costs

The normal ongoing cash operating costs, excluding non-recurring / one off costs that are controllable by the transmission company.

Change in market value of investments

The change in the market value of a scheme's investments over a period of time where the approach used to assess the market value of an asset is the same as the approach used for the purposes of a triennial valuation

Closely Associated Indirect Costs

Costs that support the operational activities. Closely associated indirect costs includes network policy (including research and development), network design and engineering, engineeringmanagement and clerical, wayleaves administration, control centre, system mapping and health and safety functions.

Customer / Capital contributions

Financial contribution received from / repaid to a customer in respect of the provision of a new connection to the transmission network.

D

De Minimis

The activity of conducting de minimis business, ie non-transmission activities, which are subject to the limitation provided for in standard licence condition B6 Paragraph 4

Direct Costs

Opex relates to the activities required to maintain and operate the transmission networks. Direct opex can be divided into planned work largely associated with maintenance tasks that are driven by asset management policies and technical standards, and unplanned work driven largely by faults on the network.

Directly Attributable Costs (Network Innovation)

The costs of maintain and managing Foreground Intellectual Property Rights (IPR)

E

Excluded services

Has the meaning given in the relevant special licence condition

F

Fault Repairs

Repair of system assets which have unexpectedly failed to operate as expected.

G

GDN

Gas distribution network

Ι

Investment income

The income received on scheme assets, net of investment management fees where it is deducted from investment income

Investment management expenses

Any scheme investment management expenses which are charged separately or have not been implicitly allowed for in the "Change in market value of investments" item or as a deduction from the "Investment income" item

L

Low risk assets

Assets where the focus is on protecting capital and gaining a modest return (e.g. gilts)

М

MOD Term [TO and SOMOD for SO]

The term of that name included in the formula for Base Transmission Revenue (System Operator Internal Revenue) set out in Special Condition 3A (or Special Condition 4A for SO) of the Electricity Transmission licence. It represents the incremental change to base revenue for the Relevant 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 ET1 Price Control Financial Model (see Chapter 1) and is specified in a direction given by the Authority by 30 November in each Relevant Year.

Ν

Network rates

Prescribed rates levied on the transmission network assets as determined and set by the Valuation Office Agency (VOA) in England and Wales Electricity Supply Industry (Rateable Values) (England) Order 2005 and Scottish Assessors Association (SAA) in Scotland.

NIA Allowable Expenditure

NIA Allowable Expenditure is the total expenditure that can be recovered from the NIA. It includes Bid Preparation Costs and Eligible NIA Expenditure.

Guidance: Version 1.3

NIA Direct Benefits

Direct Benefits are the benefits of a Project accruing to the Network Licensee during the Project implementation and comprises any expenditure included within the Network Licensees Business Plan for RIIO-T1/GD1 that will be saved as a result of undertaking the Project.

NIA Eligible Expenditure

Means the amount of expenditure spent or accrued by the Network Licensee in respect of Eligible NIA Projects and forms part of Allowable NIA Expenditure as set out in Part B of the NIA Licence Condition.

NIA Unrecoverable Project Expenditure

Means expenditure on a NIA Project the Authority has determined does not satisfy the requirements of the NIA governance document.

NIC Eligible Bid Preparation Costs

Means the amount of expenditure spent or accrued by the Network Licensee when preparing submissions for the Network Innovation Competition that appear to have been spent in such a way that satisfies the requirements of the NIA governance document as are necessary to enable the projects to be funded under the provisions of this condition.

NIC funding

Funding received from customers via the NTS Operator for Eligible NIC projects. The NIC funding amount will be directed by the Authority in accordance with the NIC governance document.

NICE

The amount directed by the Authority to be recovered by National Grid Gas on behalf of all gas distribution and transmission licensees.

Non - Transmission

Costs attributable to activities other than transmission e.g. Non regulated, Gas Distribution

Non Controllable Costs

Costs not deemed to be controllable by the transmission business, transmission licence fees, and network rates

0

Outputs

These are the outputs agreed at the time of setting the RIIO-T1 price control for safety, reliability, availability, environment, customer satisfaction, connections and wider works

Ρ

Pension Deficit Payments relating to Established Deficit

Established deficit means the difference between the assets and liabilities, determined at any point in time, attributable to pensionable service up to 31 March 2012 and relating to regulated business activities under our second Pension Principle. The term applies equally if there is a subsequent surplus.

Guidance: Version 1.3

Physical Security Expenditure

This refers to costs incurred, or expected to be incurred, by the licensee for the purposes of implementing any formal recommendation or requirement of the Secretary of State to enhance the physical security of any of the sites within the licensee's Transmission System.

Planned Inspections and Maintenance

Visual checking of the external condition of assets, including helicopter and foot patrols; and reading gauges (Inspections). Maintenance is an activity that is performed purposely and regularly in order to prevent physical assets from deteriorating or breaking down such that they continue to perform in accordance with manufacturers' recommendations.

R

RAV

Regulatory Asset value

RD Zone

Revenue Driver zone

Related party

Is an affiliate, a joint venture of the licensee or of an affiliate or an associate of the licensee or of an affiliate or a relevant associate of the licensee.

Related Party Margins

The profit or loss recorded on a transaction with an affiliate being the excess or deficit on actual direct costs and indirect costs (including financing costs) fairly attributable to the transaction or the charge and the cost of providing that transaction.

Retained Gas Distribution Networks

The 4 Gas Distribution Networks retained by National Grid

Return seeking assets

Assets which may be exposed to greater risk, but where the potential return is higher than low risk assets (e.g. equities)

Royalties Revenues

Revenue earned from intellectual property generated through eligible NIC projects

Returned Royalties Income

Revenue earned from intellectual property generated through eligible NIC projects less any Directly Attributable Costs, and that is payable to customers under the NIC, as calculated in accordance with the NIC governance document.

Retained NIC Royalties

Total royalties earned through all NIC projects to be retained by the licensee

S

Guidance: Version 1.3

Salary / staff costs

Includes: salaries and wages, national insurance contributions, overtime standby and other allowances, all ongoing pension costs and incremental deficit repair payments, share based schemes, and sick pay and sickness benefits.

Security (pertaining to SO):

Shall mean costs (operating and capital expenditure) for enhanced security activities as specifically directed by Department of Energy and Climate Change ("DECC") or the Centre for the Protection of National Infrastructure ("CPNI") pursuant to Special Licence Condition XXX. These cost are subject to an uncertainty mechanism.

T

TIRG

Transmission Investment for Renewable Generation

Totex

see Appendix 2

Transmission Licence Fee

Payments by the licensee to the Authority determined in accordance with the standard condition licence A4.

TII

Transmission Investment Incentive

W

Workforce Renewal Costs (SPTL only)

Refers to operating costs associated with the Workforce Renewal as prescribed in Special Condition 6H of SPTL's licence

Guidance: Version 1.3

Appendix 2 – Definition of Totex

Introduction

1.6. The Regulatory Asset Value (RAV) is a key building block of the price control review. RAV represents the value upon which the companies earn a return in accordance with the regulatory cost of capital and receive a depreciation allowance. Additions to the RAV are calculated as a set percentage of totex. Totex is dealt with as follows:

- an agreed percentage of Totex(see below) will be funded as slow money (ie as an addition to RAV)
- the remainder will be funded as fast money (ie which is expensed and funded in the year of expenditure)
- 1.7. At the end of each year of a price control, as part of the Annual Iteration Process, we will publish an updated ET1 Price Control Financial Model (PCFM) which will give an indicative updated RAV for each licensee. In ascertaining these values it is important that the treatment of expenditure that licensees incur in this period is consistent with the principles and specific issues set out in the Final Proposals that is, the same constituents of costs are included as Totex. We add all costs on a normal accruals basis. This excludes provisions, except for the actual cash utilisation thereof.

Definition of totex

- 1.8. The annual net additions to RAV will be calculated as a percentage of totex. Totex consists of all the expenditure relating to a licensees regulated activities with the exception of:
- all costs relating to de minimis activities;
- all costs relating to excluded services activities (with the exception of capex relating to sole use exit connections);
- pension deficit repair payments relating to the established deficit and for the avoidance of doubt, all unfunded early retirement deficiency costs (ERDC) post 1 April 2004;
- Pension Scheme Administration and PPF levy costs;
- costs associated with specific incentive schemes (to include TIRG, Network Innovation Competition and Network Innovation costs);
- all statutory or regulatory depreciation and amortisation;
- profit margins from related parties (except where permitted as defined below);
- costs relating to rebranding a company's assets or vehicles following a name or logo change;
- fines and penalties incurred by the licensee (including all tax penalties, fines and interest) except if, exceptionally Traffic Management Act costs can be shown to be efficient;
- any costs relating to the SO for external purposes (ie balancing services activity);
- compensation payments made in relation to standards of performance;

- bad debt costs and receipts (subject to an ex post adjustment to allowed revenues);
- any cost reporting which is not on a normal accruals basis as referred to in paragraph 1.2 above (for the avoidance of doubt, accruals to recognise the present value obligation to the defined benefit pension scheme (in accordance with International Accounting Standard 19) are excluded from totex);
- costs in relation to pass-through items, including business rates (except for business rates on non-operational buildings); and
- interest, other financing and tax costs⁹ (except for business rates on non-operational buildings and stamp duty land tax).

1.9. It should also be noted that:

- any change in the Totex amount for the licensee under the Totex Incentive Mechanism (TIM) is included as an adjustment to fast/ slow money;
- pension deficit repair payments relating to any incremental deficit (ie not part of the established deficit) are considered to be part of the licensee's labour costs and as such are part of Totex; and
- customer contributions (which mainly relate to connection works) and other
 proceeds received (including from legal and insurance claims) that relate to the
 transmission business are treated as an offset to Totex expenditure, unless
 specifically subject to different treatment under the Cost and Revenue reporting
 RIGs.
- 1.10. For avoidance of doubt, in each case normal ongoing pension service costs will follow employment costs in each activity to RAV.
- 1.11. Costs added to RAV are all intended to refer to costs incurred by the licensee or a related party of the licensee undertaking regulated business activities. Where those costs are recharged to the licensee, they should not include any internal profit margins of the licensee or related party, except where permitted. The treatment of related party margins is set out in paragraphs [1.23] to [1.28] below.
- 1.12. For the avoidance of doubt costs that are eligible for a reopener mechanism will follow the Totex treatment as set out above at the time they are incurred.

Deductions from RAV

1.13. The following items are not included in the costs added to the RAV but are netted off additions to the relevant cost categories in carrying out the RAV roll forward calculation:

 cash proceeds of sale (or market value of intra-group transfer) of operational assets – by netting off the proceeds from the calculated additions to RAV

⁹ Tax costs include corporation tax, capital gains tax, recoverable valued added tax and network rates

- cash proceeds of sale of assets as scrap by netting off the proceeds from the calculated additions to RAV
- 1.14. These deductions from RAV will be made (on an NPV neutral basis) at the end of the RIIO-T1 Price Control as part of the RIIO-T2 Price Control process.

Other RAV requirements

Efficient costs

1.15. Ofgem reserves the option to disallow costs from the RAV for any of the Totex expenditure if they do not relate to the regulated business or are demonstrably inefficient or wasteful. We will specifically review all costs in relation to restructuring of a company's business or operations in relation to corporate transactions, including the associated redundancy costs to satisfy ourselves that these costs are efficient and will deliver future savings for the benefit of the consumer.

Restated costs

1.16. For all costs, in whatever category, activity or exclusion, where a company makes any restatement of costs, we will apply these in to the year in which they were originally incurred rather than in the year of the restatement.

Related party costs

- 1.17. Related party costs are only included within Totex to the extent they represent the cost of services required by the licensees business. Costs for services recharged to the licensee by a related party¹⁰ will only be admissible if the licensee would otherwise have needed to carry out the service itself or procure it from a third party. We expect these services and associated costs to be itemised and justified. Such costs are only included to the extent that they satisfy the criteria regarding the prohibition on cross-subsidy in the relevant standard or standard special licence condition unless licensees already hold derogations.
- 1.18. All companies and related parties charging the licensee should be able to demonstrate they have a robust and transparent framework governing the attribution, allocation and inter-business recharging of revenues, expenses, assets and liabilities. There should be documented procedures to demonstrate compliance with EU Procurement directives and implementing national legislation where these apply.
- 1.19. We expect the network company to be able to justify the charge by reference to external benchmarking, or by reference to market-related testing, or tendering. We expect related parties to be able to support their charges by either service level

 $^{^{10}}$ A related party is a term used to cover both Affiliate and Related Undertakings as defined in Standard Licence Condition 1 for electricity transmission and standard special licence condition for gas transportation

agreements or contracts; and that such contracts would be finalised on a timely basis and not remain in draft for an unreasonable period¹¹.

- 1.20. The attribution of costs relating to shared services must be on a demonstrably objective basis, not unduly benefiting the regulated company or any other company or organisation and be based on the levels of service or activity consumed by each entity. We expect licensees to document the basis on which they approve these at board level and provide evidence of this together with details of how the continuing assessment and challenge, annually takes place.
- 1.21. The basis should be consistent from year to year and where there are changes the licensee should both document and justify them.
- 1.22. The method used to attribute costs from the related party to the licensee and to activities should be transparent and the revenues, costs, profits, assets and liabilities separately distinguishable from each other.

Related party margins

- 1.23. We will exclude related party profit margins from costs added to RAV unless the related party concerned earns at least 75 per cent of its turnover from sources other than related parties and charges to the licensed entity are consistent with charges to external customers. For this purpose, we consider an entity to be a related party if it is an affiliate or related undertaking or if that entity and the network company have any other form of common ownership. A key indicator of entities being in common ownership is that they are affiliates of the ultimate controller (or controllers where there is more than one).
- 1.24. Where network operators utilise captive insurance companies, these shall be excluded from the related party exclusion. We will not allow any excess losses relating to these captive insurers (to the extent that they are covered by captive insurers) to be funded by customer.
- 1.25. When an entity ceases to be a related party, for example on a change in ultimate controller, then from the time it ceases to be a related party its margins will be allowable, if it meets the following requirement. There must be an unambiguous demonstration that its charges to the transmission business (in the original or amended contract) remain competitive and are in line with market rates, or the contract was re-tendered and that there was more than one bidder.
- 1.26. Whilst not precluding other demonstrations of competiveness, we consider that an open competitive tender is likely to be the clearest indicator. In the absence of an open competitive tendering exercise, we will seek strong evidence that the terms of any contract are competitive.

 11 Whilst not defined, we expect licensees to demonstrate to our satisfaction why a period in excess of 6 months was reasonable

- 1.27. Irrespective of whether the network company demonstrates competition and they no longer disallow margins, the licensee must arrange to comply with the requirements of the relevant standard or standard special licence condition (on the maintenance and provision of information). It must continue to report the former related party's costs and margins as if it were still a related party for the remainder of the price control period. The data is required in order for us to be able to monitor performance against the price control and carry out cost analysis to inform future reviews.
- 1.28. Where a principal related party resource provider¹² ceases to be a related party during a price control period, for example on the restructuring of a group, we shall continue to treat them as a related party until the end of that price control period and we will continue to disallow the margins charged. At the next price control period the margins will be allowed provided that there is unambiguous demonstration that the charges to the regulated business (in the original or amended contract) remain competitive and are in line with market rates, or that the contract is retendered and that there is more than one bidder.

Transmission Incentive for Renewable Generation (TIRG)

- 1.29. This scheme dealt with the funding of costs that were considered uncertain at the time of the relevant price control. We will continue to deal with these in accordance with the conditions under which they were established.
- 1.30. TIRG covers a finite number of schemes for which licensees report the expenditure separately and this expenditure is not part of totex. The scheme allows efficiently incurred expenditure into RAV five years after completion of construction, providing the agreed outputs have been delivered. In the interim, we consider the costs to be in a shadow¹³ RAV. We will add the capex under this scheme to RAV as already established (subject to the efficiency review).

¹³ Shadow RAV: a notional pool of expenditure relating to specific schemes where it has been agreed that the expenditure will be added to RAV at a later time.

¹² A principal related party resource provider is one that has a contract to operate or manage a substantial part of a licensee's day-to-day operations, and that the licensee entered into the contract before or as part of the arrangements for a change in ultimate controller, or controllers, where there is more than one

Appendix 3 – Definitions contained in individual table guidance

Application Development37	Maintenance period access group
Application Maintenance & Support37	demand / limiting n-2 capacity -
Application server support	>300MW groups6
Boundaries 65	Maintenance period access group
Boundary64	demand / limiting n-3 capacity -
Boundary Capability (MW)65	>1500MW demand groups only6
BT21CN54	Management Services 3
Business Telecoms38	Net internal area (NetIA)3
Cable tunnels (non asset replacement	Network (LAN & WAN)
related)54	New IT system5
CAST 58	Non Operational Capex5
CEO & group management35	Offices 3
Craftsperson apprentice 44, 46	Overhead Lines 87, 8
Data centres38	Peak demand / intact capacity 6
Depots39	Procurement3
Desktop services37	Property management3
Embedded Gen RD Zone87	RD Zone8
End users (IT)38	Reactive compensation 6
Engineer apprentice46	Refresh 5
Enhancement56	Scheme Description5
Failures63	Seasonal peak demand / limiting n-1
Faults63	capacity6
Final Commissioning Date57	Security related (exc. BT21CN)
Finance, audit & regulation34	resilience5
Generation connections87	SGTs8
Graduate and management trainee .45	Storage3
Grid Entry Points60	Substation6
Grid Supply Points60	Substation other (asset replacement
Group (business support)36	related)5
HR & non-operational training33	TIRG 54, 7
Infrastructure – TSS53	Training & apprentices3
Insurance34	Training Centres3
Insurance premiums40	Training costs4
IT & telecoms31	Transmission circuits6
Lead Identifier 87, 88	Transmission Circuits6
Local Enabling (Entry – sole-use)53	Undergrounding 8
Local Enabling (Entry)53	VFM15
Local Enabling (Exit – Sole-Use)53	VFM25
Local Enabling (Exit)53	Weather related resilience 5
	Wider Works6
	Wider Works (Entry)5

Appendix 4 – Definition of Unit Costs

Definition of unit costs for use in data tables 5.8 and 5.9 - cost items to be included or excluded per specified asset category.

Unit cost scopes	Within Total Gross Scheme Cost (Y/N)	Share over units & non- unit (Y/N)	Allocate to unit (Y/N)	Allocate to non- unit (Y/N)	Commentary
Business Support Overheads & Closel	v-Associate	ed Indirect			•
Central Functions: apportionment for	7.0000.00				
direct project work (e.g. Asset Mgmt, Finance, Property, Procurement) inc					
wayleave & easement negotiations	Υ			Υ	Including type specification and testing
Planning consent & community consultation costs	Y			Y	
Consultation costs	T			T	Central programme management
Construction Management	Υ			Y	function
Health, Safety & Environment	Υ			Υ	Central management function
Common to substation works (non-un	<u>iit)</u>				
Non-unit 'Other (Civils)'	T		1	1	
Land purchase & access rights	Y			Y	
Permanent access (e.g. roads)	Υ			Y	
Site levelling, preparation, drainage	Υ			Y	
Environmental	Υ			Y	Such as ecological surveys, relocating ponds
Permanent site security & fencing	Υ			Υ	Enduring measures
Buildings	Υ			Υ	Permanent buildings
Site surveys (civil, site investigations, ground conditions)	Y			Y	
Temporary works	Y			Υ	Including temporary accesses & temporary towers
Site clearance (e.g. removing decommissioned assets)	Y			Y	
Non-unit 'Other (inc non-lead electrical as	-				
					New towers, etc, should not be
Changes to overhead line entries	Y			Y	captured as new build; atypical costs
Diesels	Y			Y	
LVAC auxiliary systems	Y			Y	
DC auxiliary systems, inc batteries	Υ			Y	
Telecoms systems	Υ			Υ	
Non-unit 'Cross-Site Connections'			T	T	
Cables	Y			Y	
GIB	Y			Y	
Overhead	Υ			Y	
Common to cable and overhead line w	orks (non-	·unit)			
Non-unit 'Other (Civils)'	JING (HOIL				
Permanent access (e.g. roads)	Y			Υ	
Site levelling, preparation, drainage	Y			Υ	



	Within Total Gross Scheme Cost	Share over units & non- unit	Allocate to unit	Allocate to non- unit	
Unit cost scopes	(Y/N)	(Y/N)	(Y/N)	(Y/N)	Commentary
Environmental works	Y			Y	Such as diverting culverts & protecting flora & fauna
Site surveys	Y			Y	Includes site investigations and line/cable routeing surveys
Temporary works	Υ			Υ	Such as temporary towers
Site clearance (e.g. removing decommissioned assets)	Y			Y	
Non-unit 'Other (inc non-lead electrical as	sets)'				
Changes to overhead line entries	Y			Y	New towers, etc, should not be captured under the new build overhead line category; these are atypical costs
Transformers (and other wound plant)				
Engineering					
Civil installation design	Υ	Υ			Includes site investigations and surveys
Electrical installation design	Υ	Υ			
Plant (inc delivery, unloading and installation	on)		•	•	
Transformers (all voltages)	Y		Y		Including tap changer, oil, conservator & breather equipment, all associated cooling equipment, etc, and excluding storage costs
Transformers (all voltages)	'		'		Further information on the delivery of
Quadrature boosters, series reactors & shunt reactors	Y			Y	these items should be included in the table narrative.
Earthing transformers and/or resistors	Υ		Υ		
Current Transformers (Primary, Secondary, Tertiary, Neutral, metering, protection)	Y		Y		Transformer-specific
Surge Arresters	Y		Υ		Transformer-specific
General services not specific to a unit or non-unit	Y	Y			Including site set-up, security to protect works, temporary fencing, waste management, etc
Control & Protection					
Tapchanger control schemes	Y			Y	
Cabling	Υ			Υ	
SCADA integration	Υ			Υ	
Protection specific to unit (e.g. Buchholz, condition monitoring, etc)	Υ		Υ		
Testing & Commissioning	1		1	1	
Factory Acceptance Tests	Y		Y		
Transformer commissioning tests	Υ		Y		Stage 1 commissioning by the installer
Protection, control & SCADA tests	Y			Y	Non-unit 'non-lead electrical assets'
Stage 2 commissioning	Υ			Υ	
<u>Unit-related civil works</u>	T		ı	ı	
Foundations	Y		Y		
Bund & pipe-work	Υ		Υ		
Cable trenches and/or ducts	Y		Υ		Boundary of unit is defined to be the transformer marshalling kiosk



	Within Total Gross Scheme Cost	Share over units & non- unit	Allocate to unit	Allocate to non- unit		
Unit cost scopes	(Y/N)	(Y/N)	(Y/N)	(Y/N)	Commentary	
Dump tanks & oil containment	Υ			Υ	Not common to all units; site-specific civils	
Noise enclosures	Y			Y	Not common to all units; site-specific civils	
Deluge and/or sprinkler systems	Y			Υ	Not common to all units; site-specific civils Not common to all units; site-specific	
Fire walls	Y			Υ	civils	
<u>Connections</u>						
HV cabling to switchgear	Υ			Υ	Transformer tails	
Busbar connections and busbar	Y			Υ		
<u>Circuit Breakers</u>						
Engineering						
Civil installation design	Υ	Υ			Includes site investigations and surveys	
Electrical installation design	Υ	Υ				
Plant (inc delivery, unloading and installat	ion)					
Full Bay	Υ		Υ			
Partial Bay	Y		Y		Equipping a skeleton bay with a breaker. This will be an outlier and should be identified in table narrative.	
Skeleton Bay	Υ			Υ		
Circuit Breaker	Y		Υ			
Current Transformers	Y		Υ		In the bay	
Voltage Transformers	Y		Υ		Where applicable	
Earth switches & line disconnectors	Y		Υ		 	
Surge arrester	Υ		Υ			
Marshalling kiosk	Y		Υ			
Circuit breaker refurbishment	Y			Υ		
General services not specific to a unit or non-unit	Y	Y			Including site set-up, security to protect works, temporary fencing, waste management, etc	
Control & Protection						
Cabling	Y		Υ		Specific to bay	
SCADA modification & commissioning	Y			Υ		
Protection & control specific to bay	Υ		Υ			
Substation control systems	Y			Υ	Protection schemes (below)	
Busbar protection	Υ			Υ	Protection schemes (below)	
Testing & Commissioning						
Factory Acceptance Tests	Υ		Υ			
Local electro/mechanical testing	Υ		Y		Stage 1 commissioning carried out by installer prior to energisation	
Stage 2 commissioning	Υ			Υ		
Unit-related civil works						
Foundations	Υ		Υ			
Multi-core cable trenches and/or ducts	Y		Y		From circuit breaker to marshalling kiosk	



Unit cost scopes	Within Total Gross Scheme Cost (Y/N)	Share over units & non- unit (Y/N)	Allocate to unit (Y/N)	Allocate to non- unit (Y/N)	Commentary
	(1/N)	(1/N)	(Y / N)	(1/11)	Commentary
Connections	Y		Υ		
Busbar connections Busbar disconnectors (including	ĭ		T		
associated foundations, etc)	Υ		Υ		
Support structures, post insulators, etc	Υ		Υ		
Through-wall bushings	Υ		Υ		
Protection Schemes / Panels				1	
					category for these where they are not
Procurement Related					included with the prime asset (e.g. in specific asset replacement schemes)
Specification & Tendering					,
Storage					
Financing costs for stored equipment					
Engineering					
Civil installation design					
Electrical installation design					
Relay Settings					
Related Equipment					
Panels, Links, relays, panel wiring, etc. SCADA interface, including load and voltage monitoring (where applicable)					
Inter-trip schemes (where applicable)					
<u>Testing</u>					
Factory Acceptance Tests					
Commissioning tests					
Balancing tests (where applicable)					
<u>Civil works</u>					
Panel Footing/s Secondary Cable Trenches and/or Ducts					
Cabinets, Panels, Tunnel Boards (as applicable)					
External weatherproof housings (where required)					
Delivery on Site					
Transport of equipment to site					
Unloading & Positioning					
Assembly					
Connections					
Wiring to primary equipment, instrument transformers, SCADA, etc. Integration with Transfer Tripping,					
busbar protection, etc.					
Metering Schemes & Substation Contr	ol Scheme	<u>s</u>			



	Within Total Gross Scheme Cost	Share over units & non- unit	Allocate to unit	Allocate to non- unit	
Unit cost scopes	(Y/N)	(Y/N)	(Y/N)	(Y/N)	Commentary
<u>Procurement Related</u>					
Specification & Tendering					
Storage					
Financing costs for stored equipment					
Engineering					
Civil installation design					
Electrical installation design					
Related Equipment					
Panels, Links, panel wiring, etc.					
SCADA &/or Communication interface					
Testing					
Factory Acceptance tests					
Commissioning tests					
<u>Civil works</u>					
Panel Footing/s					
Secondary Cable Trenches and/or Ducts					
Cabinets, Panels, Tunnel Boards (as applicable)					
External weatherproof housings (where required)					
Delivery on Site					
Transport of equipment to site					
Unloading & Positioning					
Assembly					
Connections					
Wiring to instrument transformers, SCADA, etc.					
Generic breakdown for other substati	on items)			1	
Procurement Related					
Specification & Tendering					
Storage					
Financing costs for stored equipment					
Engineering					
Civil installation design					
Electrical installation design					
Related Equipment					
Associated structures					
Communication interfaces					
Testing					
Factory Acceptance tests					
Commissioning tests					
Civil works		'			
Associated footings & Civil Works					



Unit and annua	Within Total Gross Scheme Cost	Share over units & non- unit	Allocate to unit	Allocate to non- unit	Commonton
Unit cost scopes	(Y/N)	(Y/N)	(Y/N)	(Y/N)	Commentary
Delivery on Site					
Transport of equipment to site					
Unloading & Positioning					
Assembly					
Connections Wiring to AC & DC panels, communication panels, etc.					
Connection to other substation equipment					
<u>Underground Cables</u>					
Engineering	,		ı	T	
Civil design	Y	Υ			
Electrical & thermal design	Υ	Υ			
Plant (inc delivery, unloading and installat	ion)		1	•	
Cable	Y		Υ		
Joints & terminations (inc cable sealing ends)	Y		Y		
Accessories	Υ		Υ		
Protection & Communications Pilots	Υ		Υ		
Cable Monitoring	Y		Υ		
Accesses	Υ		Υ		Including temporary roadway
General services not specific to a unit or non-unit	Y	Y			Including site set-up, security to protect works, temporary fencing, waste management, etc
Testing & Commissioning					
Factory Acceptance Tests	Y		Y		Excluding type registration or approval tests
Commissioning tests	Y		Y		Stage 1 commissioning carried out by installer prior to energisation
Stage 2 commissioning	Υ			Υ	
<u>Unit-related civil works</u>					
Excavation of trenches	Y		Υ		Inc roadway cutting, etc
Cable bridges, etc			Υ		
Backfill, physical protection & reinstatement	Y		Y		Inc materials
New-build overhead line on towers or	poles (exc	luding mir	nor diversio	ons, line er	ntry changes, etc)
<u>Engineering</u> Structural and civil design	Y		Υ		
Structural and civil design Electrical design (earth potential rise, insulation co-ordination, etc)	Y		Y		
			<u> </u>	1	<u> </u>
Plant (inc delivery, unloading and installat	<u>ion)</u>				Up to attachment point at end of cross-
Tower steelwork or poles	Y		Y		arm; inc insulating cross-arms
Earthing system	Υ		Υ		Where required
Anti-climbing devices, signage, etc	Υ		Υ		



Unit cost scopes	Within Total Gross Scheme Cost	Share over units & non- unit	Allocate to unit	Allocate to non- unit	Commentary
Unit cost scopes	(Y/N)	(Y/N)	(Y/N)	(Y/N)	Commentary
Phase conductor & earthwire	Y		Y		
Insulator strings & fittings Vibration dampers, spacers, spacer	Y		Y		
dampers, etc	Υ		Υ		
Accesses	Υ		Υ		Including temporary roadway
General services not specific to a unit or non-unit	Y	Y			Including site set-up, security to protect works, temporary fencing, waste management, etc
Testing & Commissioning					
Factory Acceptance Tests	Υ		Υ		
Commissioning inspections	Υ		Υ		
Stage 2 commissioning	Υ			Υ	
Civil works	•	•			
Installed foundations inc tower muffs	Y		Y		Use of special foundations (e.g. piled or river-crossing) to be discussed in narrative
Land			•	•	
Easement & wayleave acquisition costs	Y		Υ		
Land reinstatement	Y		Y		
Earla reinstatement	'		'	l	
Full reconductoring of overhead lines	(evisting r	outes)			
Engineering	CXISCING	outes,			
Line design	Y		Υ		
Electrical design (earth potential rise,	I		ī		
insulation co-ordination, etc)	Υ		Υ		
Plant (inc delivery, unloading and installati	on)	T			
Phase conductor & earthwire	Υ		Υ		
Insulator strings & fittings	Υ		Υ		
Vibration dampers, spacers, spacer					
dampers, etc	Y		Y		To all add a large sound and a state of the
Replacement steelwork	Y			Y	Includes bar replacement undertaken as part of full reconductoring; whole towers to be highlighted in narrative
Foundation & muff works	Υ			Y	Includes foundation works undertaken as part of full reconductoring
Accesses	Y		Υ		Including temporary roadway
General services not specific to a unit or non-unit	Y	Y	'		Including site set-up, security to protect works, temporary fencing, waste management, etc
Testing & Commissioning					
Factory Acceptance Tests	Υ		Υ		
Commissioning inspections	Υ		Υ		
Stage 2 commissioning	Υ			Υ	
Land					
					Costs incurred as part of uprating
Easement & wayleave acquisition costs	Y		Υ		projects to be identified in narrative
Land reinstatement	Υ		Υ		
					projects to be identified in narrative



	Within Total Gross Scheme Cost	Share over units & non- unit	Allocate to unit	Allocate to non- unit				
Unit cost scopes	(Y/N)	(Y/N)	(Y/N)	(Y/N)	Commentary			
Fittings only or minor refurbishment of existing overhead lines (not as part of full reconductoring)								
<u>Engineering</u>	T	I	I		T			
Electro/mechanical design	Y		Y					
Plant (inc delivery, unloading and installate		<u> </u>	I		T			
Insulator strings & fittings Vibration dampers, spacers, spacer	Y		Y					
dampers, etc	Υ		Υ					
,					Includes bar replacement undertaken			
Replacement steelwork	Y			Y	as part of minor refurbishment Includes foundation works undertaken			
Foundation & muff works	Υ			Υ	as part of minor refurbishment			
Accesses	Υ		Υ		Including temporary roadway			
General services not specific to a unit or non-unit	Y	Y			Including site set-up, security to protect works, temporary fencing & accesses, waste management, etc			
Testing & Commissioning	•							
Factory Acceptance Tests	Υ		Υ					
Commissioning inspections	Υ		Υ					
Stage 2 commissioning	Y			Y				
HVDC Systems								
Procurement Related								
Specification & Tendering								
Storage								
Financing costs for stored equipment								
Engineering								
Civil installation design								
Electrical installation design								
Related Equipment								
Converter Stations								
Onshore cables								
Offshore cables	1							
HVDC OHL								
AC Substation works								
Control & Protection								
HVDC control schemes								
Cabling								
SCADA integration								
Testing	1							
Factory Acceptance Tests	1							
Equipment commissioning tests	1							
Protection, control & SCADA tests	1							
<u>Civil works</u>	1							
Footing/s								
Bund & Pipe-work								



Unit cost scopes	Within Total Gross Scheme Cost (Y/N)	Share over units & non- unit (Y/N)	Allocate to unit (Y/N)	Allocate to non- unit (Y/N)	Commentary
Secondary Cable Trenches and/or Ducts					
Fire Systems Deluge and/or sprinkler Systems (where applicable)					
Delivery on Site					
Transport to site					
Unloading & Positioning					
Assembly					
Connections					
Primary terminal busbar Connections					
Secondary terminal busbar Connections					
Tertiary terminal busbar connections (where applicable)					
Primary and Secondary HV cabling to switchgear (where applicable)					
Busbar isolators (including associated footings etc).					