



RP7 Business Plan Distribution Cost & Volumes Guidance Notes

August 2022

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1. General Instructions & Guidance for the worksheets in the Cost & Volume Business Plan Reporting Workbook

1.1 The worksheets within the workbook are structured as follows:

Cover worksheet – this worksheet introduces the name of the workbook, the company name or names of the related parties, the reporting price base and the relevant year or years. As referenced above, the reporting periods are 1st April to 31st March for each year. A reporting year of “2021” means the year ended on 31st March 2021. We use this convention throughout the business plan templates.

Nav worksheet – this worksheet helps us to navigate the workbook. It contains three sections: the Key; the Version submission control; and Worksheets, each of which are described below.

Key - We set out a colour code key for each cell in the workbook. For example: the licensee’s input cells are formatted in the colour yellow; cells which total figures within a worksheet are formatted in the colour green; and cells which reference other worksheets within the workbook are formatted in light blue and so on, as set out in this section

Version submission control – for each submission the licensee should input the date the version was submitted to the Authority and the submission version number. This functionality will avoid the need to change the file name when submitting the workbook (except for the change to YYYY_MM_DD as identified above).

Worksheets – This section introduces each remaining worksheet within the workbook by setting out the worksheet type, worksheet name, a worksheet status and a worksheet category. The worksheet name is hyperlinked for ease of navigation.

Change Log worksheet – this worksheet records any changes to the workbook. For each version of the workbook the licensee or the Authority must input the relevant: version number; date; comments/ notable changes; the effect of the changes; and the reason for the changes. A new version shall be created if any of the following apply: new formula/s; changed template structure; new worksheets required; changed data input; or changed row, column headings or classifications. As referenced above, unless otherwise agreed, only the Authority should make structural or formula changes to the workbook. The licensee shall complete a new row for each submission of the workbook completing all the relevant cells in that row.

1.2 The data submission comprises the following worksheets with detailed instructions and guidance on the individual worksheets provided in the subsequent sub-sections:

C1 – Cost Matrix (2013 – 2030)

C26 – Network operating Costs – Other

C34 – Non-Activity Based Costs

C36 - Indirects

CV1 – Diversions

CV3 – Asset Replacement

CV5 – Refurbishment

CV6 – Civil Works

CV8 – Legal and Safety

CV12 – Environmental Reporting

CV13 – Activity Volumes – Inspections and Maintenance

CV14 – Tree Cutting

CV15 – Occurrences Not Incentivised (ONIs)

CV16 – Faults

CV101 – Reinforcements and DSM payments

CV102 – Reinforcement Load Indices

CV105 – Operational Information Technology and Telecoms

CV109a – Metering Services

CV109b – Meter Reading

V1 – Total Asset Movements

V2 – Asset Register – Connection Projects

V3 – Asset Register - General and Fault Level Reinforcement

V4a & b – Asset Register – Other Movements

V5 – Asset Register – Age Profile

V12 – Business Carbon Footprint

V15 – Network Data

CM17 - FTEs

2. Cost Templates

2.1 The licensee, where required, shall include historic and forecast data as follows:

- a) RP5 and RP6 historic – outturn data
- b) RP6 forecast – projected data to the end of the price control
- c) RP7 forecast – projected data

Worksheet C1: UR Cost Matrix (2013 – 2031)

2.2 The ‘C1 –UR Cost Matrix 20YY’ worksheets collect the outturn financial information we need to understand the complete picture of the licensee’s business, on a basis which is comparable with the GB DNOs.

2.3 Individual worksheets are required to be completed for each year.

Cost Types

2.4 Cells A10 to A27 separate the following ‘cost types’:

- a) Labour;
- b) Pensions;
- c) Contractors;
- d) Materials;
- e) Wayleaves;
- f) Road Charges;
- g) Rent;
- h) Subscriptions; and
- i) Related Party Margins.

Cost Categories

2.5 Cells B6 to AN6 provide broad categorisation allowing for identification between:

- a) Direct Activities;

- b) Non Activity Based Costs;
- c) Non-GB DNO Activities
- d) Indirect Activities;
- e) Activities open to competition;
- f) Activities not open to competition

2.6 Cells B8 to AN8 further identify the following UoS funded cost categories:

- a) Load Related;
- b) Non Load Capex (excluding Non-op Capex);
- c) Network Operating Costs;
- d) Non GB DNO
- e) NABC (non activity based costs);
- f) Closely Associated Indirects;
- g) Business Support Costs;
- h) Non Op Capex;

2.7 As implied by the layout of the matrix, columns: B to R and V to X, are exclusively 'direct' cost categories as far down as row 40 in the worksheet.

2.8 Columns S and T are exclusively Non Activity Based Costs as far down as row 40 in the worksheet.

2.9 Columns Y to AN are exclusively 'indirect' cost categories (again as far down as row 40 in the worksheet).

2.10 The requirements exclude some cost categories and sub-categories reported to Ofgem which are not relevant in our circumstances. These categories may be added back into the cost matrix in the future if necessary. The licensee shall provide documentary evidence of the reconciliation of the total costs (as per cell AO82) to the Financial Data BPT Reporting Workbook total for the same reporting period. If necessary, the licensee shall identify any additional cost categories required to provide a complete statement of costs.

2.11 The template includes cost categories which reflect specific elements of the Northern Ireland regulatory framework, such as: Connections – sole use; Re-openers; Meter Reading; Metering Capex; and Market Opening.

Allocation of income rows 42 and 43

- 2.12 The C1 matrix provides the facility for the licensee to re-allocate income received under certain categories of cost to other categories of cost. For example, income received for connection activity may be required to cover business support costs or closely associated indirect costs. The template includes checks in cells AP42 and AP43 to ensure that the allocation of income rows net to zero.
- 2.13 These rows have caused some confusion in the past, in terms of how they differ from the other allocations described below, so the Authority is providing the following additional guidance to show why they are still necessary and appropriate for the licensee to complete.
- 2.14 These two rows re-allocate income received, which can be very different from the associated costs that the income was designed to cover.
- 2.15 Income will be very different from costs because: income is usually based on an estimation of future costs (not actual costs incurred in the past); in many cases, income is received in advance of costs being incurred and the matrix is designed to capture these timing differences.
- 2.16 By way of a simplified example, imagine a connection job was estimated by the licensee at £1,000, being £800 of direct costs and £200 of indirect costs. Imagine then that the customer pays this estimation of £1,000 to the licensee, in advance of the works being carried out, after which, the licensee carries out the work for an actual cost of £900 which represents £750 of direct costs and £150 of indirect costs.
- 2.17 In the above example rows 42 and 43 are designed to capture the allocation of £200 of income received on behalf of the estimated indirect costs. As can be seen from the example, the allocation of £200 is a different allocation to the allocation of actual costs, and potentially received in a different time period than when actual costs were incurred.

Allocation of indirect costs to 'Connections – Sole use' rows 64 to 69

- 2.18 The C1 matrix provides the ability for the licensee to allocate indirect costs to 'Connections – Sole use'. Cells B64 to B69 should contain positive values (indicating an allocation of indirect costs to these categories) whereas cells S64 to AN69 should contain negative values (indicating an allocation of indirect costs from those categories). If this is not the case, the licensee should set out the reasons in its commentary. The template includes checks in cells AP64 to AP69 to ensure that the allocation of indirect costs in these rows, net to zero.

Allocation of indirect costs to ‘Connections – Shared use’ rows 73 to 78

- 2.19 The C1 matrix provides the ability for the licensee to allocate indirect costs to ‘Connections – Shared Use’. Cells B73 to B78 should contain positive figures (indicating an allocation of indirect costs to these categories) whereas cells S73 to AN78 should contain negative figures (indicating an allocation of indirect costs from those categories). If this is not the case, the licensee should set out the reasons in its commentary. The template includes checks in cells AP73 to AP78 to ensure that the allocation of indirect costs in these rows, net to zero.

Other guidance

- 2.20 The licensee should not return the BPT Workbooks with any erroneous check cells in any C1 matrix. A reconciliation for the total cost, as per cell AO82, to the annual total in the Financial Data RIGs, for each of these reporting periods is also required. This should identify the total costs allocated to transmission activities as well as any other items required to reconcile the values.

Worksheet C26 – Network operating costs – Other

- 2.21 The ‘C26 – NOCs Other’ worksheet records costs associated with dismantlement, remote location generation operating costs, and substation electricity.
- 2.22 Key terms for this worksheet, which are defined in the Glossary include:
- a) Dismantlement
 - b) Substation Electricity
- 2.23 For substations on the licensee’s network with metered electricity supplies, the licensee should insert the amount paid for electricity usage, the units consumed, and the average cost per unit (in £/MWh) per year.
- 2.24 For substations with unmetered supplies, the licensee should insert an estimate of units consumed and provide an explanation of how the estimate was derived in the commentary.

Worksheet C34 – Non-Activity Based Costs

- 2.25 The ‘C34 – Non Activity Based Costs’ worksheet collects data on Non Activity Based Costs and should be reported by each category listed within the sheet.

- 2.26 Key terms for this worksheet are defined in the Glossary and include:
- a) Pass Through Costs
 - b) Other
 - c) Bad Debt Expense
 - d) Profit/Loss on sale of Fixed Assets and Scrap
- 2.27 Incremental ring fence compliance is the costs that have necessarily been incurred as a direct result of complying with the additional ring fence condition requirements introduced by the Authority.
- 2.28 The worksheet collates details of payments made by the licensee in relation to guaranteed standards breaches and other compensation or goodwill payments. The relevant headings of these tables are defined in the Glossary:
- a) GS Compensation Payments - Electricity (Standards of Performance) Regulations (Northern Ireland) 1993
 - b) Ex-Gratia Compensation Payments – Electricity (Standards of Performance) Regulations 1993
 - c) Any other Ex-Gratia/Goodwill Compensation Payments.
 - d) All Non Activity Based costs except for pensions deficit repair payments should be classified as Subscriptions; this should include only actual costs and not depreciation.
 - e) All income must be entered as a negative number.

3. Cost & Volumes Templates

Worksheet CV1 – Diversions

- 3.1 The 'CV1 – Diversions' worksheet records cost and volume data for Diversions and Conversions of wayleaves to easements, easements and injurious affections
- 3.2 The total activity volumes and direct costs are to be reported by the applicable voltage and categorisation listed within the worksheet. These categories are defined in the Glossary and include:
- a) Diversions – Conversion of wayleaves to easements, easements, injurious affection;
 - b) Diversions – Wayleave Terminations;
 - c) Diversions – Highways;
- 3.3 The volumes related to this worksheet must only be recorded once the claim is settled. The volumes in the table relate to:
- a) Claims associated with conversion of wayleaves to easements, easements, injurious affection; and
 - b) Quantity of diversions completed.
- 3.4 Where a diversion requires work at more than one voltage level, then the diversion must be recorded against the higher voltage.
- 3.5 A diversion includes all work and equipment utilised in the scheme, this could include multiple cables and equipment types. This should be reported as one diversion scheme for the purposes of this worksheet against the highest voltage involved in that scheme.
- 3.6 The number of claims settled data must be entered for each category for the Activity Volumes table. While the Total Direct costs that corresponds to this activity should be entered in the adjacent table.
- 3.7 The first category within the table is for the input of costs relating to the conversion of Wayleaves to Easements (servitudes), payment of Easements and Injurious Affection claims and is reported by voltage level.
- 3.8 The second category is Diversions – Wayleave Terminations and is to be reported by voltage level. The volumes must only be recorded once the diversion is completed.

- 3.9 The final category is Diversions for Highways and the costs are to be reported by voltage level. The volumes must only be recorded once the diversion is completed. The licensee should report Highway diversion costs to reflect local practice.

Worksheet CV3 – Asset Replacement

- 3.10 The 'CV3 – Asset Replacement' worksheet records cost and volume data for condition based replacement of assets.
- 3.11 The total additions for each class of asset and direct costs are to be reported by the applicable voltage and categorisation listed within the worksheet. The number of units of each asset must be entered into the respective Volumes cells.
- 3.12 The next table in this worksheet is for the reporting of the total number of Disposals for each asset category that is listed.
- 3.13 All asset categories listed within the worksheet are defined in the Glossary.

Worksheet CV5 – Refurbishment

- 3.14 The 'CV5 – Refurbishment' worksheet records cost and volume data for refurbishment works that forms part of the total Asset Replacement category.
- 3.15 All categories listed within this worksheet are defined in the Glossary.
- 3.16 The total volume of assets refurbished for each class of asset and direct costs are to be reported by the applicable voltage and categorisation listed within the worksheet. The number of units of activity for each asset must be entered into the respective Activity Volumes cells. The direct costs associated with these must be entered into the respective Costs cells in the adjacent table.

Worksheet CV6 – Civil Works

- 3.17 The licensee is required to report civil works costs at a disaggregated level:
- a) Where the costs are driven by the condition of civil work items, e.g. plinths replaced due to poor condition; and
 - b) Where the costs are driven by asset replacement e.g. new switchgear doesn't fit old plinth therefore plinth replacement also necessary
- 3.18 To avoid double counting, the licensee should ensure that civil works costs are not included in the cost of replacing or refurbishing the assets.

Worksheet CV8 – Legal and Safety

- 3.19 The 'CV8 – Legal and Safety' worksheet records cost and volume data for Legal and Safety.
- 3.20 The categories for this worksheet are defined in the Glossary.
- 3.21 The total activity volumes and direct costs are to be reported by the applicable categorisation listed within the worksheet.
- 3.22 The direct costs associated with these Legal and Safety works must be entered into the respective Costs cells.
- 3.23 The table allows for the licensee to add up to five further categories of Legal and Safety work. A definition of the activity and full explanation of any additional categories added by the licensee must be included in the Commentary Template.

Worksheet CV12 – Environmental Reporting

- 3.24 This worksheet is for the input of volume and cost data for Environmental information.
- 3.25 This worksheet collects the data corresponding to complying with environmental legislation or guidelines for each of the following categories:
 - a) Visual amenity
 - b) Oil Pollution Mitigation Scheme – Cables
 - c) Oil Pollution Mitigation Scheme - Operational Sites
 - d) Oil Pollution Mitigation Scheme - Non Operational Sites
 - e) SF6 Emitted Mitigation Schemes
 - f) Noise Pollution
 - g) Contaminated Land Clean Up
 - h) Loss Reduction Schemes
 - i) Environmental Civil Sanctions
- 3.26 These categories are defined in the Glossary.
- 3.27 Environmental Civil Sanctions includes:

- a) Environmental Reportable incidents
 - b) Environmental Prosecutions
 - c) Environmental Warnings
 - d) Environmental Cautions
- 3.28 The total activity volumes and direct costs are to be reported by the applicable categorisation listed within the worksheet. The relevant units for the volumes vary according to the specific category.
- 3.29 SF6 should be reported in kgs.
- 3.30 The direct costs associated with this activity must be entered into the respective Costs cells.
- 3.31 The Licencee must include in their commentary:
- a) discussion of any emerging trends in the environmental data and areas of trade-off in performance
 - b) further details of any reportable incidents or prosecutions
 - c) details of any Environmental Management System (EMS) accredited under ISO or other recognised accreditation scheme

Worksheet CV13 – Inspections and Maintenance

- 3.32 The 'CV13 – I&M' worksheet records cost and volume data related to Inspections and Maintenance.
- 3.33 The worksheet reports the volumes and costs associated with inspections, and repair and maintenance by asset type.
- 3.34 The total activity volumes and direct costs are to be reported by the applicable category, activity and voltage level listed within the worksheet. The volumes correspond with each volume type listed for the applicable row. The total direct costs for each activity must be entered into their respective cells in the adjacent table. The table at the top of the sheet (rows 7 to 50) is for recording activities by the number of incidences of each activity. For example if 100 inspections of Overhead Pole Lines were carried out at 85 different sites in the year, the activity volume recorded in this table would be 100. The bottom table (rows 56 to 73) is for recording the number of Individual Assets Inspected. Using the previous example, the activity volume recorded in this table would therefore be 85.

3.35 All categories within this worksheet are defined in the Glossary.

Worksheet CV14 – Tree Cutting

3.36 The 'CV14 – Tree Cutting' worksheet records cost and volume data related to Tree Cutting.

3.37 These are the volumes and costs to manage vegetation in the vicinity of network assets to comply with the requirements of ENATS 43-8 (horizontal and vertical clearances) and ETR 132 (network resilience)

3.38 The key terms for this worksheet are:

- a) ENATS 43-8
- b) ETR 132
- c) Spans Cut
- d) Spans Inspected (Tree Cutting)
- e) ETR 132 - Stand alone
- f) ETR 132 - In addition to 43-8 clearance work
- g) ETR 132 - As Part of OHL Replacement
- h) Span length
- i) Km of network cleared
- j) Network Parameters
- k) Tree Cutting Policy
- l) Tree Cutting Cycle

3.39 The total activity volumes and direct costs are to be reported by the applicable categorisation listed within each table.

3.40 The direct costs associated with this expenditure must be entered into the respective Costs cells.

3.41 The Network Parameters and ENATS 43-8 Tree Cutting Policy table collects volume data. The total volumes data should be reported by the applicable voltage category and categorisation listed within the table.

- 3.42 The Progress against ETR 132 table summarises the total Overhead Network Length that has been cleared to meet the standard during the year. The table also requires the licensee to record how much of their total network is compliant with the standard at the reporting date.
- 3.43 If the activity, to meet either ENATS 43-8 or ETR 132 requirements, is atypically more or less costly (on a unit cost basis) during one or more reporting years, then licensee will be expected to provide further explanation as to the reasons for this in the accompanying Commentary Template.

Worksheet CV15 – Occurrences Not Incentivised (ONIs)

- 3.44 This worksheet is for the input of cost and volume data for Occurrences Not Incentivised (ONIs).
- 3.45 For each of the following activity tables enter both cost and volume data as applicable:
- a) power system voltage equipment/no unplanned incident
 - b) other occurrences (not affecting power system voltage equipment).

Worksheet CV16 – Faults

- 3.46 The 'CV16 – Faults' worksheet records cost and volume data for all fault incidents including asset additions and disposals.
- 3.47 Costs in this worksheet should be reported in a consistent manner according to the required breakdown as presented in the worksheet.
- 3.48 The total activity volumes and direct costs are to be reported by the applicable occurrence type, and voltage categories listed within the worksheet. The volumes correspond with each volume type listed in the applicable row. The total direct costs for each activity must be entered into their respective cells in the adjacent table.
- 3.49 For the avoidance of doubt the costs of restoring supplies, repairs and/or replacing of assets following an incident should be reported only in CV16 and not in CV3 Asset Replacement. The costs of restoring supplies, repairs and/or replacement of assets following an Incident due to metal theft on the licensee's network are also to be reported in CV16.
- 3.50 For asset additions and disposals, enter volume data only.
- 3.51 For each of the following activity tables, enter volume and cost data, as directed above:

- a) Unplanned Incidents on Power System Voltage Equipment - Damage & Non-Damage Incidents (Excluding Severe Weather Events and Metal Theft Incidents)
- b) Unplanned Incidents on Power System Voltage Equipment (Severe Weather Events Only).
- c) Unplanned Incidents on Power System Voltage Equipment (Metal Theft Incidents Only)

3.52 The following key terms are defined in the glossary:

- a) Non Damage Incidents
- b) Damage Incidents
- c) Unplanned Incident (unplanned incident on distribution system)

Worksheet CV101 – Reinforcement

3.53 The 'CV101 – Reinforcement' worksheet records cost and volume data for:

- a) Substation reinforcement;
- b) Circuit reinforcement;
- c) Voltage regulation;
- d) ault level reinforcement;
- e) Demand Side Management (DSM payments); and
- f) Smart solution interventions

3.54 For the avoidance of doubt, the rows relating to the primary and secondary network should be populated with data relating to both Low Carbon Technology-driven demand growth, and conventional growth.

3.55 For substation reinforcement on the primary network, the volume entered must reflect the forecast increase in MVA of capacity that will result from the reinforcement work forecast to be carried out.

3.56 For circuit reinforcement, the volume entered must reflect the MVA released in the period disaggregated by voltage. For secondary network circuit reinforcement schemes the licensee should also provide the circuit lengths involved.

- 3.57 For voltage regulation schemes, the volume entered must reflect the forecast volume of schemes, disaggregated by voltage.
- 3.58 Where mixed schemes involve only circuit reinforcement and voltage regulation, these should be included in the circuit reinforcement data.
- 3.59 The costs and volumes, where relevant, associated with substation reinforcement, circuit reinforcement and voltage regulation schemes should be disaggregated against the voltages on which the work is undertaken. The primary voltage should reflect the highest voltage that has been worked on, whilst the secondary voltage should be the lowest voltage worked on.
- 3.60 DSM payments are only reported by voltage level.
- 3.61 The DSM table is for the input of DSM expenditure the licensee has made by way of limiting peak load on the system to avoid the need to reinforce the network. When a DSM payment avoids reinforcement at more than one voltage level, the costs should be split across the relevant voltage levels. The licensee is required to indicate the capacity requirements that have been avoided through use of DSM, again where this applies to more than one voltage the volume should be split across the relevant voltage levels. DSM payments for purposes other than limiting the peak load on the system should be separately identified in the Commentary document.
- 3.62 The volumes and costs for smart solution deployment should be recorded in the relevant cells. For the avoidance of doubt, these deployments are related to LCT and conventional load growth. The licensee should provide its estimate of the proportion of cost related solely to LCT driven load growth in the Commentary document
- 3.63 With regards to the fault level reinforcement element of the table, the licensee must populate the relevant rows with the total number of HV and EHV switchboards / substation busbars, the number of these that have a fault level duty of above 95% of their rating, and the volume that are subject to fault level operational restrictions.
- 3.64 Additionally, the licensee should provide volumes and costs of the specific fault level scheme types as listed in the table.

Worksheet CV102 – Reinforcement (LI)

DEMAND DESCRIPTION

Substation Name

3.65 This column should be populated with the name of each primary network substation within the DNO.

Substation Primary voltage

3.66 This column should be populated with the highest voltage in operation at each substation.

Substation Secondary voltage

3.67 This column should be populated with the lowest voltage in operation at each substation.

No. of customers

3.68 This column should be populated with the number of customers fed from each substation.

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Substation firm capacity immediately available under single circuit outage conditions

3.69 This column should be populated with the maximum capacity that will be available at a substation, or within a substation group, immediately following the occurrence of an (n-1) incident within the 2021/22 reporting year.

3.70 The Firm (n-1) Capacity shall only include capacity that will be immediately available, under such circumstances, without requiring manual intervention. This input should be based on the 2021/22 actual data.

3.71 This column should be populated with the MVA before any adjustments are made for DSR or DG contribution to security of supply. This input should be based on the 2021/22 actual data.

Immediately available DSR adjustment

3.72 The additional level of capacity (MVA) above the “Current substation firm capacity under single circuit outage conditions” (if relevant) that is released through DNO-contracted DSR contracts. The adjustment that is made should be carried out in line with the recommendations of engineering technical recommendation ETR130. This input should be based on the 2021/22 actual data.

Assessed contribution towards security of supply from DG adjustment

3.73 The additional level of capacity (MVA) above the “Current substation firm capacity under single circuit outage conditions” (if relevant) that is released through the contribution of distributed generation to security of supply compliance. The adjustment that is made should be carried out in line with the recommendations of engineering technical recommendation ETR130. This input should be based on the 2021/22 actual data.

LI Firm Capacity

3.74 This is the recorded firm capacity corrected for contracted DSR and any contribution of DG to security of supply compliance.

Season of Most Onerous Demand, and

3.75 “Season of Most Onerous Demand” sets out whether the demand peak at the substation occurs during winter or summer.

Limiting Factor

3.76 The “Limiting Factor” refers to the specific restricting factor, of those listed, that determines the substation’s firm capacity:

- a) Rating of a transformer
- b) Rating of the incoming circuit(s)
- c) Capacity of normally connected secondary interconnection
- d) Rating of the secondary switchboard
- e) Rating of any ancillary equipment
- f) Voltage regulation
- g) Substation or network configuration
- h) Rating of the primary switchgear or busbars
- i) Redundant substation
- j) Meshed network circuit capacity
- k) Customer connection agreement

3.77 This input should be based on the 2021/22 actual data.

Substation observed maximum demand

3.78 The maximum demand as observed for the substation within the 2021/22 reporting year corrected only for normal running conditions.

Weather correction adjustment to observed maximum demand

3.79 The negative or positive adjustment to each substation's firm capacity (MVA) that results from any weather correction to maximum demand carried out by the DNO. This input should be based on the 2021/22 actual data.

Significant measurable embedded generation adjustment to maximum demand

3.80 Any significant and measurable DG output that coincides with the maximum demand at the substation. This input should be based on the 2021/22 actual data.

Connected non-firm demand adjustment to observed maximum demand

3.81 Where identified in line with ETR130, any non-firm demand that shall be excluded from the maximum demand should be entered in this column as a negative adjustment. This input should be based on the 2021/22 actual data.

LI maximum demand (31 March 2022)

3.82 This is the recorded maximum demand corrected for any weather correction carried out by the DNO, "significant" measurable embedded generation and/or non-firm demand connected.

Substation maximum demand as % of substation firm capacity (31 March 2022)

3.83 This calculation shows the substation's utilisation as a percentage of the firm capacity utilised at the time of maximum demand

Hours energy at risk (31 March 2022)

3.84 The amount of time the substation has spent loaded at 100% or above during the 2021/22 reporting year. This input should be based on the 2021/22 actual data.

Load Index ranking (31 March 2022)

3.85 This column calculates the LI1-LI5 ranking for each substation as dictated by the bandings shown in the table below:

Banding	Loading Percentage	Duration Factor
L1	0 - 80	N/A
L2	81 - 95	N/A
L3	96 - 99	N/A
L4	99+	<9 hours over 100%
L5	99+	>9 hours over 100%

Table 3.1: Load Index Banding Criteria

LI risk points (31 March 2022)

3.86 Each LI band has an associated weighting factor (see table 3.2). The risk points for each substation listed are calculated by multiplying the weighting factor by the number of customers connected to the substation.

LI Band	L1	L2	L3	L4	L5
Weighting Factor	1	1	1	20	100

Table 3.2: LI weighting factors

FORECAST LOAD INDEX MAX DEMAND

Historic and forecast max demand (MVA) - excluding effect of forecast RP7 reinforcement and including actual/forecast RP6 reinforcement and all contracted non-firm demand

3.87 Historic and forecast maximum demand should be provided on an annual basis covering the RP6 and RP7 periods. This figure should include the impact of all reinforcement forecast to the end of RP6 and exclude any forecast impact due to planned RP7 reinforcement investment.

FORECAST LOAD INDEX FIRM CAPACITY

Historic and forecast firm capacity (MVA) - excluding forecast RP7 reinforcement and including actual/ forecast RP6 reinforcement and all contracted DSR impact

3.88 Historic and forecast firm capacity should be provided on an annual basis covering the RP6 and RP7 periods. This figure should include the impact of all reinforcement forecast to the end of RP6 and exclude any forecast impact due to planned RP7 reinforcement investment.

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Maximum demand as % of firm capacity

- 3.89 This calculates the Maximum Demand as % of Substation Firm Capacity for each substation as forecast for the end of the RP6 period. The figures for Firm capacity should reflect any interventions carried out, or forecast to be carried out in RP6.

Forecast hours energy at risk (start of RP7)

- 3.90 The amount of time the substation is forecast to spend loaded at 100% or above, per year, by the end of the RP6 period. This should reflect any interventions carried out, or forecast to be carried out in RP6.

Load Index ranking

- 3.91 Each substation's forecast Load Index ranking by the end of the RP6 period. This should reflect any interventions carried out, or forecast to be carried out in RP6.

LOAD INDEX – 31 MARCH 2031 (with no RP7 intervention)

Maximum demand as % of firm capacity

- 3.92 This calculates the Maximum Demand as % of Substation Firm Capacity for each substation as forecast for the end of the RP7 period with no forecast interventions.

Forecast hours energy at risk

- 3.93 The amount of time the substation is forecast to spend loaded at 100% or above, per year, by the end of the RP7 period with no forecast interventions.

Load Index ranking

- 3.94 Each substation's forecast Load Index ranking by the end of the RP7 period with no forecast interventions.

EXPENDITURE

Historic and forecast reinforcement expenditure (£m)

- 3.95 Historic and forecast expenditure should be provided on an annual basis covering the period 1 October 2017 – 31 March 2031. Where the demand growth at a particular site requires a new substation to be constructed, the expenditure should be populated against the substation that's demand growth is the main driver for the investment.

P2 COMPLIANCE

Is a derogation or self derogation against P2 in place or anticipated

3.96 Four options are available:

- Yes, in place
- Yes, anticipated
- No, avoided
- Not required

Are the relevant consents secured?

3.97 Simple yes/no required

Is a reinforcement to increase firm capacity for this demand group?

3.98 This indicates, based on the expenditure forecast within the RP6 period, whether there is expenditure forecast to be incurred on the increasing of capacity of each substation within the RP6 period. Simple yes/no required

N-1 or N-2 intervention?

3.99 The Licencee shall indicate whether the expenditure against a specific substation is to fund an N-2 or N-1 scheme. Where no expenditure is forecast against a specific substation, this column should be left blank.

CONVENTIONAL INTERVENTION DETAIL

3.100 The following columns should only include data from conventional intervention (asset upgrading/strengthening)

Total RP7 Expenditure

3.101 The forecast expenditure in £m for conventional intervention. This is a subset of the expenditure reported in columns BN to BR

Firm capacity change resulting from intervention

Demand change resulting from intervention

Intervention description

INNOVATIVE INTERVENTION DETAIL

3.102 The following columns should only include data from innovative intervention (solutions not requiring asset upgrading/strengthening)

Total RP7 Expenditure

3.103 The forecast expenditure in £m for innovative intervention. This is a subset of the expenditure reported in columns BN to BR

Firm capacity change resulting from intervention

Demand change resulting from intervention

Intervention description

LOAD INDEX – 31 MARCH 2031 (with further RP7 intervention)

Forecast maximum demand as % of forecast firm capacity (with further RP7 intervention)

3.104 This calculates the Maximum Demand as % of Substation Firm Capacity for each substation as forecast for the end of the RP7 period and includes all forecast interventions.

Forecast of hours at risk

3.105 The amount of time the substation is forecast to spend loaded at 100% or above, per year, by the end of the RP7 period and includes all forecast interventions.

Load Index ranking

3.106 Each substation's forecast Load Index ranking by the end of the RP7 period includes all forecast interventions.

WEIGHTED RISK SCORE

3.107 This section calculates the loading risk points for the following scenarios:

- a) End of RP6 with actual/forecast interventions
- b) End of RP7 including RP6 actual/forecast interventions and excluding forecast RP7 interventions
- c) End of RP7 including RP6 actual/forecast interventions and including forecast RP7 interventions

Worksheet CV105 – Operational Information Technology and Telecommunications

- 3.108 The 'CV105 – Operational IT & Tele' worksheet provides the Authority with a summary of Operational IT and Telecoms expenditure and collects total activity volumes. Costs are reported by category and cost type.
- 3.109 Key terms for this worksheet are defined in the Glossary.
- 3.110 The Commentary Template should be used to outline:
- a) Key elements of your existing IT infrastructure and approach to IT&T
 - b) Whether the IT strategy over the reporting periods represents a 'business as usual' approach or whether your investment plans support the preparation for future innovation.
 - c) Identification of system updates (or new systems) that may occur.
 - d) We would also expect to see a road-map (or equivalent documentation) to outline how your IT&T investment strategy supports future network enhancements (e.g. smart grids).

Worksheet CV109a – Metering Services

- 3.111 The 'M109a – Metering Services' worksheet collects total activity volumes and direct costs by category and meter type.
- 3.112 This worksheet requires costs and volumes to be reported in accordance with the terms defined in the Glossary.
- 3.113 Line 22 should be populated only for meters replaced under the revenue protection program agreed in our letter dated 12 February 2016. Only the costs for meter replacement should be populated. Additional revenue protection costs shall be reported elsewhere.
- 3.114 The costs for each asset category shall to be reported by cost type split in the bottom tables.

Worksheet CV109b – Meter Reading

- 3.115 The 'CV109b – Meter Reading' worksheet records cost and volume data for meter reading activities.
- 3.116 All categories listed within this worksheet are defined in the Glossary.

- 3.117 For each category of meter read listed in the template, the licensee shall record volumes and costs in the relevant tables. Only volumes of successful meter reads shall be reported, however, reported costs should include all visits (successful and unsuccessful).
- 3.118 The Licensee should also report the volumes of customer reads for domestic and commercial customers.
- 3.119 The costs for each asset category shall to be reported by cost type split in the bottom tables.

4. Volume Templates

- 4.1 The Asset Register is a collection of worksheets which show the total number of network assets for each year and the number of network assets added and removed from the network each year. The asset register is not linked to any of the Activity worksheets. For each work driver (e.g. asset replacement, general reinforcement, etc.), a worksheet has been added to allow each asset addition or disposal to be recorded against the driver.
- 4.2 The Asset Register consists of the following worksheets:
- V1 – Total Asset Movement. This worksheet collates data directly from the CV3 (asset replacement tab) and the data collection templates listed below. The RP5 closing balance for all asset categories should be entered into column F. This will then be the RP6 opening balance.
 - V2 – Asset Register Connection projects. This worksheet records asset additions and disposals due to Connection projects.
 - V3 – Asset Register General Reinforcement. This worksheet records asset additions and disposals due to General Reinforcement of the network.
 - V4a – Asset Register - Other. This data in the worksheet records asset addition and disposal volumes associated with various other activities.
 - V4b – Asset Register Other – Faults. This worksheet records asset addition and disposal volumes associated with activities related to faults.
- 4.3 The purpose of this Asset Register is to collect total asset population volume data, and the number of additions and disposals for each asset type.
- 4.4 Additions and disposals in each category must be input as positive numbers. The closing balance for each asset category, the total number of additions in each asset category and the total number of disposals in each asset category must be recorded according to the units specified in each worksheet.
- 4.5 Any data entered into the data cleansing section in the V1 template should have a corresponding explanatory entry in the commentary template.
- 4.6 Definitions for the key terms used within the Asset Register worksheets can be found within the glossary.
- 4.7 The ‘various activities covered in V4a – Other movements’ worksheet are:

- a) Diversion (non-fully rechargeable)
- b) ESQCR
- c) Consequential Asset Replacement
- d) Undergrounding in Designated Areas
- e) Legal & Safety
- f) Inspection & Maintenance
- g) Worst Served Customers
- h) Environmental Investment
- i) Dismantlement of redundant assets
- j) Assets adopted from ICPs

4.8 The various activities covered in the 'V4b – Other Movements – Faults' worksheet are:

- a) Severe Weather Atypical 1-20 Year Events
- b) Trouble Call

Worksheet V5 – Asset Register – Age Profile

- 4.9 The 'V5 – Age Profile' worksheet records an aged profile of the existing asset quantities (by asset category as specified in the worksheet and the Glossary) in the Regulatory Year in which they were added to the network.
- 4.10 The licensee must input the average asset lives for the assets and the standard deviation of asset lives in the asset replacement profile section. This is required only for post-1969 assets. Average asset lives are defined as the "expected average age at replacement as experienced by the licensee for the asset population (this is the mean value of the asset age replacement profile of the particular asset)".
- 4.11 Assets must only appear in this table once they are energised on the network. Assets which have been re-energised must appear in the year in which the asset was originally installed.
- 4.12 Assets under construction must not be included in the age profile.
- 4.13 Strategic spares must not be included in this table until installed and energised on the system.

- 4.14 Assets disconnected and de-energised during the year but which are available for re-commissioning (e.g. pressure assisted cables) must not be entered in the age profile.
- 4.15 Asset data must be disclosed by operating, and not by construction, voltage. Where asset data is available only at construction voltage then this must be stated in the Commentary Template.
- 4.16 The licensee is required to provide forecast data to the end of the RP7 price control.
- 4.17 The licensee should take care to ensure that the totals in column BT
- 4.18
- 4.19 correspond to the totals in column U of the V1 template.

Worksheet V12 – Business Carbon Footprint

- 4.20 This provides a quantification of the licensee’s Business Carbon Footprint (in tonnes of CO2 equivalent).
- 4.21 **We have not included network losses in the total BCF.**
- 4.22 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.
- 4.23 We recognise that it may not be possible to follow exactly the detailed guidance below for the forecast data – we expect, as far as possible, the same principles to be adopted, and any variances from the guidance to be explained in the commentary.

General principles of the reporting methodology

- 4.24 The reporting methodology must be compliant with the principles of the Greenhouse Gas Protocol¹ (“GHG Protocol”). In summary², the BCF reporting must be:
- a) Relevant: the inventory must reflect the substance and economic reality of the licensee’s business relationships, not merely its legal form

¹ <http://www.ghgprotocol.org/>

² For further details, please refer to “GHG Protocol – A corporate Accounting and Reporting Standard”, available at: <http://www.ghgprotocol.org/files/ghg-protocol-revised.pdf>

- b) Complete: all relevant emission sources must be included (although in practice lack of data or cost of gathering could be a limiting factor)
- c) Consistent: accounting approaches, inventory boundary and calculation methodology must be applied consistently over time
- d) 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
- e) 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

- 4.25 The licensee 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, i.e. report all emissions from operations on which the licensee has full authority to introduce and implement its operating policy.
- 4.26 The licensee should also report, where data is available, 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 Distribution 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.

Contractors

- 4.27 The exclusion of any contractors must be justified and any thresholds used for exclusion must be stated in the commentary.
- 4.28 The commentary must also include an indication of what proportion of contractors have been excluded. This figure could be calculated based on contract value.
- 4.29 As far as possible, the licensee must try to ensure that data provided from different contractors is based on consistent assumptions.

Detailed reporting requirements

- 4.30 The licensee is given flexibility to set their own standards for:

- 4.31 **Reporting year. We understand that calendar year is the current standard;**
- 4.32 The use of estimates rather than direct measurement³, and any exclusion from the reporting based on (lack of) materiality considerations⁴. 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:
- a) When the type of emissions is not measured.
 - b) 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.
- 4.33 As a general principle, DNOs must focus more on the first type of estimation.
- 4.34 The commentary must include data tables for each area of emissions (ideally at the same level of granularity as the DAERA conversion factors) containing the following information:
- a) the level of emissions (in tCO₂e)
 - b) the data source and collection process⁵
 - c) the relevant physical units e.g. miles
 - d) the emission conversion factor used
 - e) the source of the emission conversion factor (this shall be DAERA unless there is a compelling case for using another conversion factor)
 - f) the Scope of the emissions i.e. Scope 1, 2 or 3
 - g) whether the emissions have been measured or estimated
 - h) any tools used in the calculation
 - i) whether the emissions stem from contractors

³ In accordance with the principles of the GHG protocol and ISO14001, we expect a process of continual improvement, so that estimates are progressively replaced by direct measurement. More attention must be given to those estimates of emissions, which are likely to be significant.

⁴ In cases where emissions have not been estimated, it is important that this is transparently documented and justified in the methodology

⁵ Collection processes requiring a more detailed explanation must be elaborated upon elsewhere in the commentary.

- 4.35 The commentary must also include details of any auditing the licensee has performed to verify its emissions data.

Guidance on completing the worksheet

Buildings energy usage

- 4.36 Emission for electricity usage in buildings must be converted according to the factor for the “Grid Rolling Average”.
- 4.37 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.

Transport

- 4.38 DAERA 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 licensee. 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 licensee).
- 4.39 DAERA 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 data is available, e.g. through fuel cards.
- 4.40 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 (tCO₂e) 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.
- 4.41 Operational Transport is the transportation (often a fleet of vehicles) used in the day to day operation of the business – i.e. in the inspection and maintenance of the network.
- 4.42 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

- 4.43 This category caters for GHG emissions from a range of gases that may be relevant to the licensee business. We anticipate that this will mainly include SF6 emissions, but other gases may be included (e.g. HFC from air conditioning). SF6 emissions must be reported in accordance with ENA-ER S38, using DAERA conversion factors.
- 4.44 The commentary must identify which fugitive emissions have not been calculated or estimated.

Fuel combustion (non-building)

- 4.45 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. DAERA 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

- 4.46 This is to consider the licensee's responsibility towards losses as a Scope 2 emission, using the DAERA conversion factor "Grid Rolling Average" for electricity losses.

Worksheet V15 – Network Data

- 4.47 The 'V15 – Network data' worksheet records data on customer numbers and demand on an annual basis (based on actual and forecast data as appropriate) as follows:
- a) Number of customers
 - b) Units distributed – the total volume of GW/h distributed by the network
 - c) Network-wide peak demand – the total volume of demand (MVA) at the 12 month peak half-hour period. This should be captured in line with the Distribution code definition of Peak Demand, but should be measured in line with the substation maximum demand that is incorporated into the Load Index in table.
- 4.48 The Commentary should include detail of the drivers of the movement in system max demand, and each driver's contribution to the net movement. Please set out how you have made your assumptions of both which drivers

to use and their effects. In addition, please specifically detail what stakeholder interactions you have had in determining the forecast for system max demand.

- 4.49 Refer to the Glossary for the definition of any category listed within this section.

Worksheet CM17 – Full Time Equivalent

- 4.50 This worksheet collects the number of FTEs (Full Time Equivalent) by category. Enter the number of FTEs for licensee Own and also for Related Parties.
- 4.51 For Indirect FTEs, this worksheet should be consistent with headcount before reallocation to non-distribution activities.
- 4.52 Refer to the Glossary for the definition of any category listed within this section.

5. **Commentary**

5.1 See “Overarching Guidance” document

6. Glossary of Terms

- 6.1 The relevant definitions of the Electricity Distribution (DPCR5) Glossary of Terms – Regulatory Instructions and Guidance: Version 3 applies to the Business Plan Submission.
- 6.2 Specific additional definitions relevant to the Business Plan Submission are set out in Annex 3 of the Overarching Guidance.

7. Version Control

Version	Date	Description	Applicable Year
A	16 Sep 2021	First draft for review	All
2.1	25/8/22	Final version for issue	All