# PRICE CONTROL DISAGGREGATION MODEL (PCDM)

## MODEL USER GUIDE

6TH NOVEMBER 2023

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## CONTENTS

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## GLOSSARY

| Term | Meaning |
|---|---|
| Allowed revenue | The DNO Party's Allowed Distribution Network Revenue |
| All-the-way tariff | A tariff applicable to an end user of a DNO Party's network |
| Annual Review Pack (ARP) | A model completed by each DNO Party that calculates forecast CDCM use of system tariffs for the next five years |
| Authority | The Gas and Electricity Markets Authority |
| Common Distribution Charging Methodology (CDCM) | The methodology used for calculating charges to Designated Properties as required by standard licence condition 13A of the Electricity Distribution Licence. |
| CDCM model | The model used in the calculation of CDCM use of system charges |
| Distribution and Connection Use of System Agreement (DCUSA) | A multi-party contract between licensed electricity distributors, suppliers and generators in Great Britain concerned with the use of the electricity distribution system |
| DCUSA text | The text of the DCUSA |
| DCUSA Ltd | The company established, owned, and funded by parties to the DCUSA. The main activity of DCUSA Ltd is to administer the governance of the DCUSA. |
| DCUSA Change Proposal (DCP) | A proposal to change the DCUSA text |
| Customer contribution | Capital charges payable by customers under the DNO Party's connection charging policy |
| Distribution losses | Units lost while being transported through the Distribution System |
| Distribution services area (DSA) | The specified area within which a DNO Party must provide specified distribution services |
| Distribution system | The system consisting (wholly or mainly) of electric lines owned or operated by a distributor |
| Distribution network operator (DNO) | A company licensed to distribute electricity in Great Britain by the Authority |
| DNO party | An electricity distributor who operates one of the 14 DSAs and in whose Electricity Distribution Licence the requirements of Section B of the standard conditions of that licence have effect |
| EHV | Nominal voltages of at least 22kV and less than 132kV |
| EHV Distribution Charging Methodology (EDCM) | The methodology used for calculating charges to Designated EHV Properties as required by standard licence condition 13B of the Electricity Distribution Licence |
| EDCM model | The model used in the calculation of EDCM use of system charges |
| Embedded network | An electricity distribution system operated by an LDNO and embedded within the DNO Party's network |

| Term | Meaning |
|---|---|
| End user | A user of the network that is not a LDNO |
| Extended Method M | The name for a model previously used to calculate LDNO discounts for application in the EDCM |
| Forecast Business Plan Questionnaire (FBPQ) | The questionnaire that the DNO Party is required to submit in line with Regulatory Instructions and Guidance issued by the Authority |
| Forward cost pricing (FCP) methodology | A methodology used in the EDCM to set locational charges based on annual incremental charges for EDCM connectees. A fundamental principle of the FCP model is that the revenue recovery generated from its incremental charges is equal to the expected cost of reinforcement. |
| GWh | A gigawatt hour of electricity |
| HV | Nominal voltages of at least 1kV and less than 22kV |
| IDNO Party | A Party that holds a Distribution Licence in which Section B of the standard distribution licence conditions does not have effect |
| Licensed distribution network operator (LDNO) | An IDNO Party or DNO Party operating an electricity distribution system outside of its DSA |
| LDNO boundary | The point at which electric lines or electrical plant that form part of the DNO Party's network are connected to an embedded network that is not owned or operated by the DNO party |
| LDNO discount | Percentage discounts calculated in the PCDM applied to a DNO Party's all-the-way tariffs |
| Long-run incremental cost (LRIC) methodology | A methodology used in the EDCM to set locational charges based on nodal incremental costs. These costs represent the brought forward (or deferred) reinforcement costs caused by the addition of an increment of demand or generation at each network Node. |
| LV | Nominal voltages of less than 1kV |
| LV Mains | LV distributing mains where:<br>a) the upper boundary is at the secondary side (LV) of a distributor transformer; and<br>b) the lower boundary is the point of connection associated with the LV service |
| LV Services | The service line from the LV main to the DNO's protection device situated upon the customer's premises, including the joint and associated components connecting the service line to the distributing main |
| Method M | The name for a model previously used to calculate LDNO discounts for application in the CDCM |
| Modern equivalent asset value (MEAV) | An estimate of replacement cost |
| Network | The DNO Party's Distribution System within the DNO Party's Distribution Services Area |

| Term | Meaning |
|---|---|
| Network level | A circuit or transformation level between supplies at LV and the transmission network |
| Nominated Calculation Agent | The provider of specified input values under the DCUSA text, currently ElectraLink |
| PCDM | The Price Control Disaggregation Model used to calculate LDNO discounts for application in the EDCM and CDCM |
| Regulatory reporting pack (RRP) | A dataset produced each year by each DNO Party for the Authority |
| Unit | A kilowatt hour of electricity |
| Use of system (UoS) charges | Demand Use of System Charges and Generation Use of System Charges |
| User | Customers (whether demand customers or generators) and (where relevant) LDNOs |

# 1. INTRODUCTION

This section explains the background to this model user guide, sets out important notes regarding the specification assumed for the model, presents a change control log and sets out the structure of the document.

## 1.1. Background and purpose of this document

CEPA and TNEI have been appointed as service providers to DCUSA Ltd to re-develop and maintain the charging models used to set electricity distribution use of system tariffs, in line with the Distribution and Connection Use of System Agreement (DCUSA). This encompasses the following methodologies and corresponding models:

- the Common Distribution Charging Methodology (CDCM) model;
- two EHV Distribution Charging Methodologies (EDCM) models;
- the Price Control Disaggregation Model (PCDM); and
- the Annual Review Pack (ARP) model.

This document provides an accompanying user guide for the PCDM v5 release of the 2025/26 model, as provided by CEPA/TNEI to DCUSA Ltd. on 6th November 2023, and based on the "Attachment A_2025/26 Charging Methodologies Pre-Release" version of the DCUSA text, which was issued to CEPA/TNEI on 9th October 2023.

The purpose of this document is to provide additional information to users with regards to the PCDM. This includes operating instructions, interpretations of the DCUSA text, and explanations of the implementation of the DCUSA text in the model.

This document also provides some background on concepts used in the model to aid in the understanding of the charging methodologies. However, the scope of this guide is limited to the implementation of the DCUSA methodologies in the model. Therefore, it does not, for example, include any guidance to companies on assumptions that should be used when developing input data for the PCDM.

## 1.2. Important notice

This user guide, and the model referenced above, have been developed in line with:

- Schedule 29 of the "Attachment A_2025/26 Charging Methodologies Pre-Release" version of the DCUSA text;
- the following (if any) DCUSA change proposals (DCPs), where not yet reflected in the abovementioned DCUSA text specification: none; and
- any additional assumptions specified in Annex A to this user guide.

The content of this user guide should in no way be interpreted to take precedent over the DCUSA text. However, in preparing this user guide and the model referenced above, we have assumed, with approval from DCUSA Ltd, that any assumptions set out in Annex A take precedence over the abovementioned DCPs and DCUSA legal text. We have also assumed that any abovementioned DCPs take precedence over the abovementioned DCUSA text. Revisions to this document over time are summarised in the change control table in the next section.

This document is applicable only to the version of the model, DCUSA text and DCPs referenced herein and should not be used as a guide to any other models or versions of the DCUSA legal text or DCPs.

## 1.3. Change control

Table 1.1 records which version of the DCUSA text and charging models this document was written for, and how it differs from previous user guide versions. This document corresponds to the most recent publication referred to in the end row of Table 1.1.

*Table 1.1: Change control*

| Document version | Date delivered to DCUSA Ltd. | Corresponding version of DCUSA text and DCPs | Corresponding charging models | Updates from previous version |
|---|---|---|---|---|
| 1.0 | 30/05/2018 | 1 April 2019 pre-release (received 05/03/2018) | PCDM_v1_20180529.xlsx (provided 30/05/2018) | Original version |
| 2.0 | 20/07/2018 | DCUSA v10.3 (released 28/06/2018) | PCDM_v2_20180720.xlsx (provided 20/07/2018) | References to DCUSA text updated to comply with version 10.3 (released 28/06/2018) |
| 3.0 | 29/08/2018 | DCUSA v10.3 (released 28/06/2018) + DCP 306 | PCDM_v3_20180824.xlsx (provided 29/08/2018) | Updated to reflect DCP 306 |
| 3.0 | 16/10/2018 | 01 April 2020 DCUSA Charging Methodologies Pre-Release (released 09/10/2018) | PCDM_v3_20181016.xlsx (provided 16/10/2018) | Updated references to legal text version |
| 4.0 | 08/11/2019 | 01 April 2021 DCUSA Charging Methodologies Pre-Release (issued to CEPA/TNEI 10/10/2019) | PCDM_v4_20191108.xlsx (provided 08/11/2019) | Updated references to legal text version, charging year and error checks. |
| 4.0 | 06/11/2020 | 01 April 2022 Charging Methodologies Pre-Release – October 2020 (Schedules 16, 17, 18, 20 and 29) DCP 361 (issued to CEPA/TNEI 15/10/2020) | PCDM_v4_20201106.xlsx (provided 06/11/2020) | Updated references to legal text version. |

| Document version | Date delivered to DCUSA Ltd. | Corresponding version of DCUSA text and DCPs | Corresponding charging models | Updates from previous version |
|---|---|---|---|---|
| 4.0 | 22/11/2021 | Attachment A_Charging Methodologies Pre-Release_01042023 | PCDM_v4_20211122.xlsx (provided 22/11/2021) | Release for charge setting. Cover sheet, version control and annotation changes only. |
| 5.0 | 27/10/2022 | Attachment A_2024-25 Charging Methodologies Pre-Release | PCDM_v5_20221027.xlsx (provided 27/10/2022) | Release for charge setting. Cover sheet, version control and annotation changes, plus implementation of DCP 395. |
| 5.0 | 06/11/2023 | Attachment A_2025/26 Charging Methodologies Pre-Release | PCDM_v5_20231106.xlsx (provided 06/11/2023) | Release for charge setting. Cover sheet and version control changes. |

### 1.4. Structure of the user guide

The remainder of this document is set out as follows:

- Section 2 explains some of the **background to the PCDM model** – including an explanation of the DCUSA charging methodologies, and how the PCDM model relates to the other models used to produce distribution use of system charges;
- Section 3 summarises the **structure of the PCDM model**;
- Section 4 issues instructions on **how to operate the PCDM model**;
- Sections 5-8 each correspond to part of the PCDM model:
    - Section 5 explains the purpose of the **information sheets**;
    - Section 6 provides a commentary on the **model input sheets**;
    - Section 7 walks through each of the **calculation sheets** – explaining their purpose, how they correspond to the DCUSA text, what further assumptions are made in the way the model implements the text, and providing further explanation on the economic and/or engineering rationale, where necessary;
    - Section 8 explains the contents of the **output sheets**; and
- Annex A contains a **log of assumptions** used to clarify or amend the DCUSA legal text.

# 2. BACKGROUND TO THE CHARGING MODELS

This section sets out some background on the DCUSA charging methodologies before providing a high-level overview of the PCDM, the subject of this user guide.

## 2.1. The DCUSA charging models

A key part of the DCUSA is the common framework it sets out for calculating use of system charges for users of DNO Parties' networks. The objectives of the charging methodologies, set out in the Schedules of the DCUSA text, include the promotion of competition in the generation and supply of electricity, and the cost-reflectivity of tariffs.

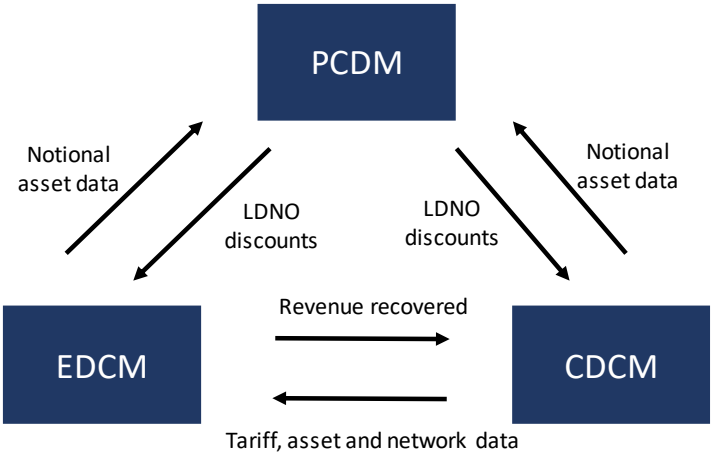
The charging methodologies are split by voltage level and are implemented by DNO Parties through a set of standardised charging models published by DCUSA Ltd. In total there are four models that are used to produce distribution tariffs. These models cover the following methodologies:

- **Common Distribution Charging Methodology (CDCM)**, set out in DCUSA Schedule 16, covers the calculation of tariffs for users connected to high voltage (1-22kV) and low voltage (sub-1kV) networks.
- **Extra high voltage Charging Methodology (EDCM)** covering the calculation of site-specific charges for users connected to the distribution network above 22kV or within the boundary of an HV primary substation. The EDCM is further separated into two methodologies and corresponding models:
    - the forward cost pricing (FCP) method, set out in DCUSA Schedule 17; and
    - the long-run incremental cost (LRIC) method, set out in DCUSA Schedule 18.
- **Price Control Disaggregation Model (PCDM)**, the specification of which is set out in DCUSA Schedule 29, calculates discounts applied to tariffs for LDNOs in the CDCM and EDCM models.

In addition to the four core charging models above, DNO Parties also produce an **Annual Review Pack (ARP)** which forecasts CDCM tariffs over a five-year period. The requirements of the ARP are set out in DCUSA Schedule 21.

The four core charging models are used by DNO Parties to produce distribution tariffs each year, with each using either the FCP or the LRIC version of the EDCM. Tariffs produced by the models are calibrated to allow DNOs to recover their allowed revenue for the charging year, as set by Ofgem. In order to achieve this, there are interactions between the models, as shown in Figure 2.1 below.

*Figure 2.1: Interactions between models*




The PCDM requires data on network assets from the EDCM and CDCM to calculate discounts applied to CDCM LDNO tariffs.[1] In turn, the EDCM and CDCM require the LDNO discounts from the PCDM to calculate LDNO tariffs. The EDCM and CDCM interact by exchanging information on network characteristics, revenues recovered through tariffs, and tariffs and fixed charge adders for LV/HV-connected end-users.

The DCUSA text does not stipulate how DNOs have to solve these interactions.

## 2.2. The PCDM

The PCDM derives the LDNO discount factors applied to the "all-the-way" tariffs calculated in the CDCM and the EDCM.

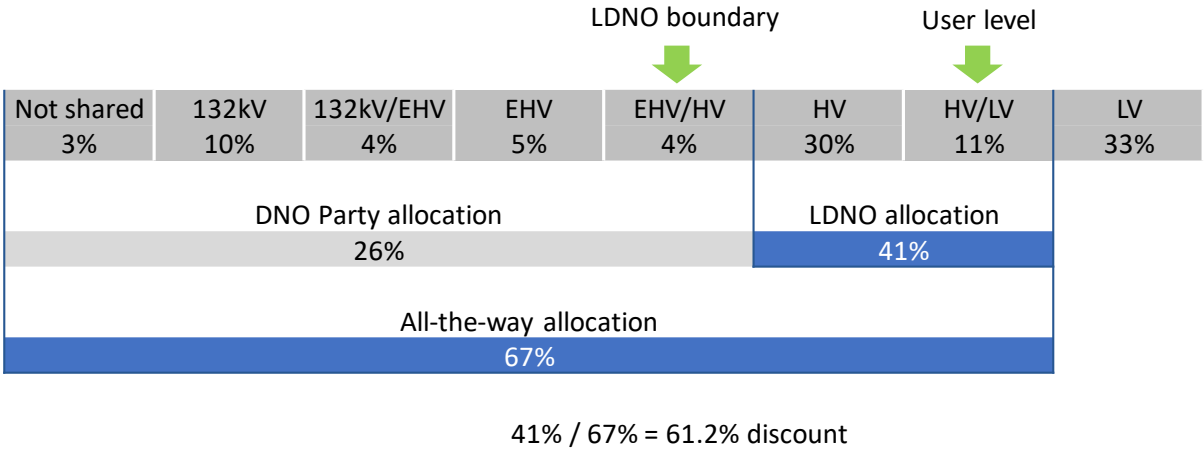
At its core, the PCDM is a revenue allocation model that determines a share of allowed revenues for different network levels. It uses those allocations to determine an estimate of the share of revenue covered by the network levels:

- provided by the LDNO up to the LDNO boundary: the LDNO allocation; and
- represented in the all-the-way tariff that would apply if the user were connected to the DNO Party's network: the all-the-way allocation.

As shown in the worked example in Figure 2.2 below, a stylised worked example for the calculation for the EDCM discount for a HV/LV substation connected user of a LDNO whose boundary is at the EHV level, LDNO discounts are simply calculated by dividing the LDNO allocation by the all-the-way allocation.

[1] The information from the EDCM and CDCM is used to calculate the EHV reduction factor, which is only applied in the CDCM discounts.

*Figure 2.2: EDCM discount worked example*




41% / 67% = 61.2% discount

As can be seen in Figure 2.2, all else equal, LDNO discounts are larger for users whose LDNO has its boundary with the "host" DNO at a higher voltage level; this reflects a higher expected portion of costs being met by the LDNO. All else equal, LDNO discounts are also higher for end users at higher network levels, under the assumption that fewer network levels would be captured in the all-the-way tariff of users of that type.

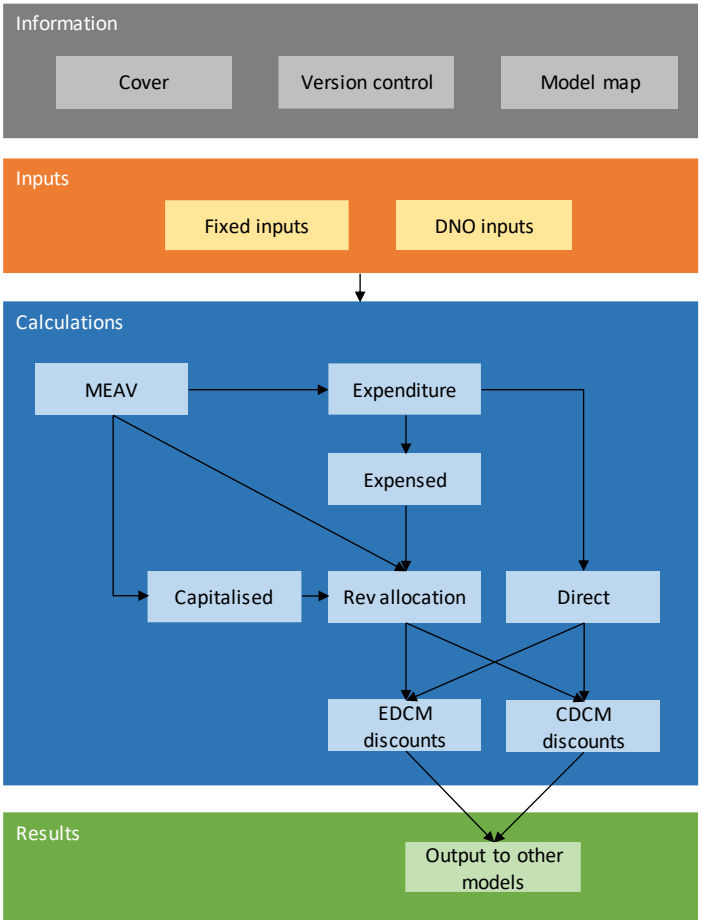
Where the LDNO boundary is at a circuit level (132kV, EHV, HV or LV), rather than a transformation level (132kV/EHV, EHV/HV or HV/LV), a portion of the allocation to that level is included in the LDNO allocation.

In general, PCDM discounts are calculated generically for all LDNOs within a DNO Party's DSA and do not reflect specific features of LDNO's embedded network beyond the network level where its boundary is. DNO discounts should also be relatively stable over time as most values used are from specific historic years with only a few values potentially changing from year to year.

# 3. MODEL STRUCTURE

As shown in Figure 3.1 below, sheets in the PCDM are grouped into four main sections: (i) information sheets; (ii) inputs; (iii) calculations; and (iv) outputs.

*Figure 3.1: PCDM model map*




The information sheet section contains the cover sheet, version control sheet, a clickable model map similar to that shown above and an index sheet with links to the main sections of each sheet and to each of the model's inputs and outputs.

The inputs section has two sheets: the "Fixed inputs" sheet, which contains inputs that should not be altered by model users, as they are universal or set in the DCUSA text; and the "DNO inputs" sheet, which contain tables for DNO Parties to input values provided by the Nominated Calculation Agent, from their EDCM and CDCM models, and other DNO-specific values.

The calculations section contains eight sheets. All calculation sheets draw on at least one of the two input sheets and the linkages between the calculation sheets are shown in Figure 3.1 above. Five of the calculation sheets contain calculations to allocate revenue to different network levels and another contains calculations used to allocate revenue within a network

level in certain cases. Those six sheets then flow through to separate sheets where the EDCM discounts and CDCM discounts are calculated.

The results section contains a single output sheet presenting the discounts calculated in the model in the format used in the DNO Party's EDCM and CDCM models.

Within the sheets of the charging models, input, calculation and output sections are labelled following a consistent convention, summarised as follows:

- Separate labels are generated for inputs, calculations (labelled as "Section") and outputs.
- The first number represents the model number, set out in Table 3.1 below.
- The second and third numbers represent the order of sheets within the model. The first input, calculation or output sheet will have a value of 01, and so on.
- The letter (separated from the numbers with a hyphen) represents the order within a sheet, from top to bottom.

For example, a section with the label of "Input 402-E" would represent the fifth input section, on the second input sheet in the PCDM; a label of "Section 104-B" would represent the second calculation section on the fourth calculation sheet of the CDCM.

*Table 3.1: Model numbers*

| Model | Number |
|---|---|
| CDCM | 1 |
| EDCM (LRIC) | 2 |
| EDCM (FCP) | 3 |
| PCDM | 4 |
| ARP | 5 |

A list with clickable hyperlinks to each labelled section is provided on the "Index" sheet.

## 4. OPERATING INSTRUCTIONS

The charging models use a consistent set of cell formats to help with operating and understanding of the model. These are reproduced in Figure 4.1 below.

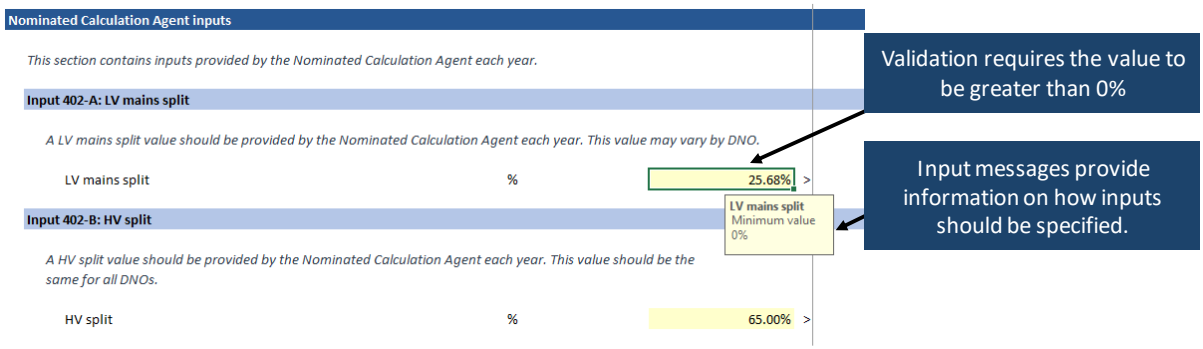
*Figure 4.1: PCDM cell formats*

| Format | Description |
|---|---|
| | Cell intentionally blank |
| Value | Hardcoded input |
| Value | User input |
| Value | Model output |
| Value | Calculation |
| **Value** | Value from another worksheet |
| Value | Value used on another worksheet |
| Value | Issue identified in a check |
| Text | Label |
| *Text* | Annotation |
| **Text** | Column heading |
| **Text** | Level 1 heading |
| **Text** | Level 2 heading |
| **Text** | Level 3 and 4 heading |
| Sheet tab colour | Information sheet |
| Sheet tab colour | Input sheet |
| Sheet tab colour | Calculation sheet |
| Sheet tab colour | Output sheet |

To operate the PCDM model, DNO Parties should ensure they have filled in all user input cells (shaded yellow) in the "DNO inputs" sheet. Input values that are zero (e.g. if the asset count is zero for an asset category) should be entered as such and not left blank.

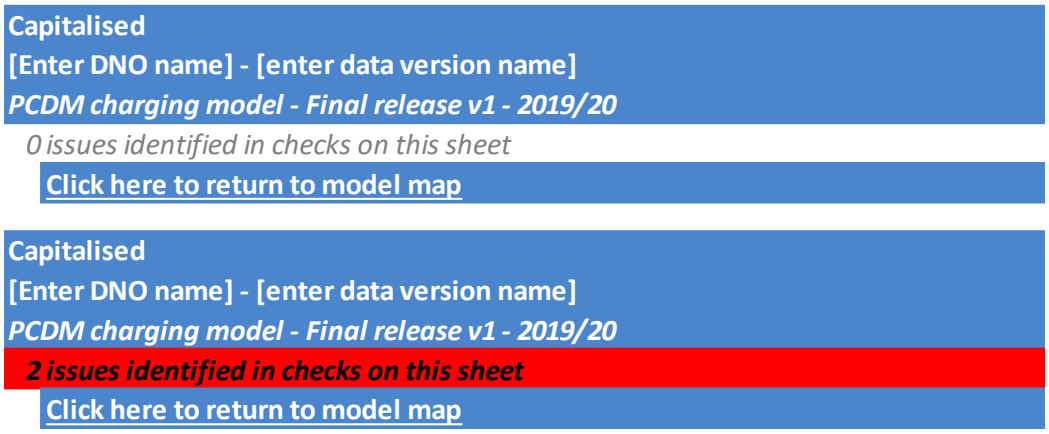
Where appropriate, inputs include data validation and input messages to help guide users how to input values into the model (an example is shown in Figure 4.2 below).

*Figure 4.2: Example of validation and input messages*



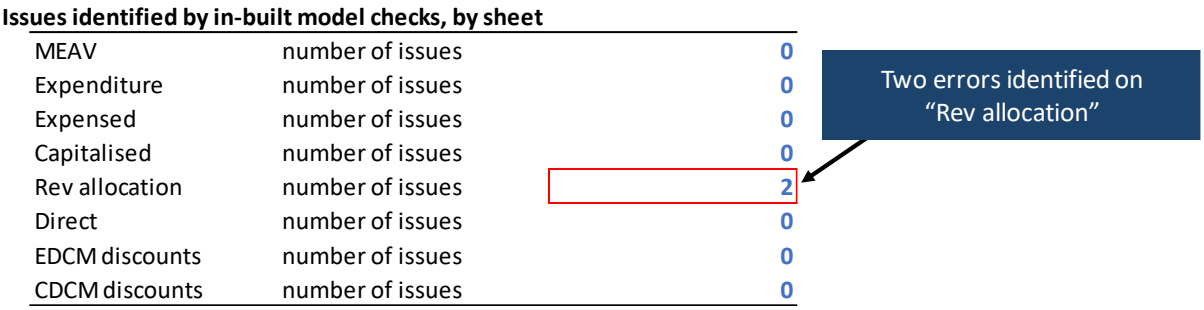
If any checks flag an issue, then Row 4 of the relevant sheet will display with a red background, and the total number of issues will be given. This is illustrated in Figure 4.3.

*Figure 4.3: Example of highlighting Row 4 for warning messages*




The calculation sheets of the PCDM model contains a variety of in-built checks, summarised at the end of each sheet. All model checks are summarised on the "Version control" tab, near the bottom of the sheet (an example is shown in Figure 4.4 below). Once all relevant data has been input to the model, users should check the summary of in-built model checks to ensure that no issues have been identified.

*Figure 4.4: Summary of in-built model checks*

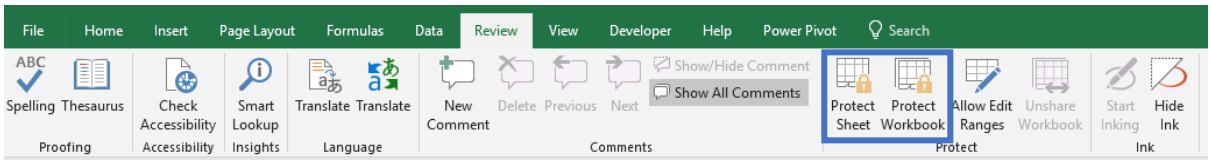



Users should ensure that these checks do not flag any issues.

Given the input data specified, the PCDM will produce a set of EDCM user discounts on the "EDCM discounts" sheet and a set of CDCM user discounts on the "CDCM discounts" sheet. To facilitate running the full suite of charging models, these values, which feed into the EDCM and CDCM models respectively, are summarised on the "Outputs" sheet.

By default, the structure of the workbook and all the sheets within it are protected, so that users can only change inputs cells, fixed inputs cells, filters and cell formats. The model can easily be 'unlocked' by unprotecting the sheets and unprotecting the workbook through Excel's "Review" tab. By default, there is no password for this protection.

*Figure 4.5: Protecting and unprotecting the workbook*



## 5. INFORMATION SHEETS

The PCDM contains four information sheets that provide information and aid with model navigation, but which do not affect the calculations or results of the model.[2] These are:

- **Cover**, which sets out the DNO Party and charging year to which the model applies, as well as model data version. Cover also provides space to indicate the model publication date and version of DCUSA text to which the model corresponds.
- **Version control**, setting out the version of the model published by DCUSA Ltd, and any changes from the previous model version. This sheet also provides a summary of in-built model checks.
- **Model map**, providing an interactive schematic of the model.
- **Index**, providing a list of and hyperlinks to all major section headings throughout the model, as well as to input and output tables.

No content on these sheets should affect the calculations of the model.

In addition to the information sheets, each tab in the workbook contains a description of the worksheet and annotations to tables and section headings where appropriate. References to the DCUSA text are also provided throughout the model in the right-hand most column (and indicated with a chevron ">" in column I). All references to paragraphs and tables in that column are made with reference to the Schedule and version of the DCUSA text noted in Section 1 of this document.

[2] The other DCUSA charging models contain one further sheet: "Named ranges." No such sheet is included in the PCDM as it does not currently contain any named ranges.

# 6. INPUTS

The PCDM contains two input sheets as summarised in the following subsections.

### Fixed inputs

The "Fixed inputs" sheet contains pre-populated inputs that should not be altered by the DNO Party. These inputs are constant across DNO Parties and are either universal values (e.g. the value one million) or specified explicitly in the DCUSA text (e.g. the mapping of MEAV asset categories to network levels).

### DNO inputs

The "DNO inputs" sheet contains inputs organised in four sections:

1. Nominated Calculation Agent inputs;
2. inputs from other charging models;
3. inflation indices; and
4. other DNO-specific inputs.

The Nominated Calculation Agent values section contains two input values provided to the DNO Party by the Nominated Calculation Agent. The "LV mains split" value is specific to each DNO Party. The "HV split" value is the same for all DNO Parties.

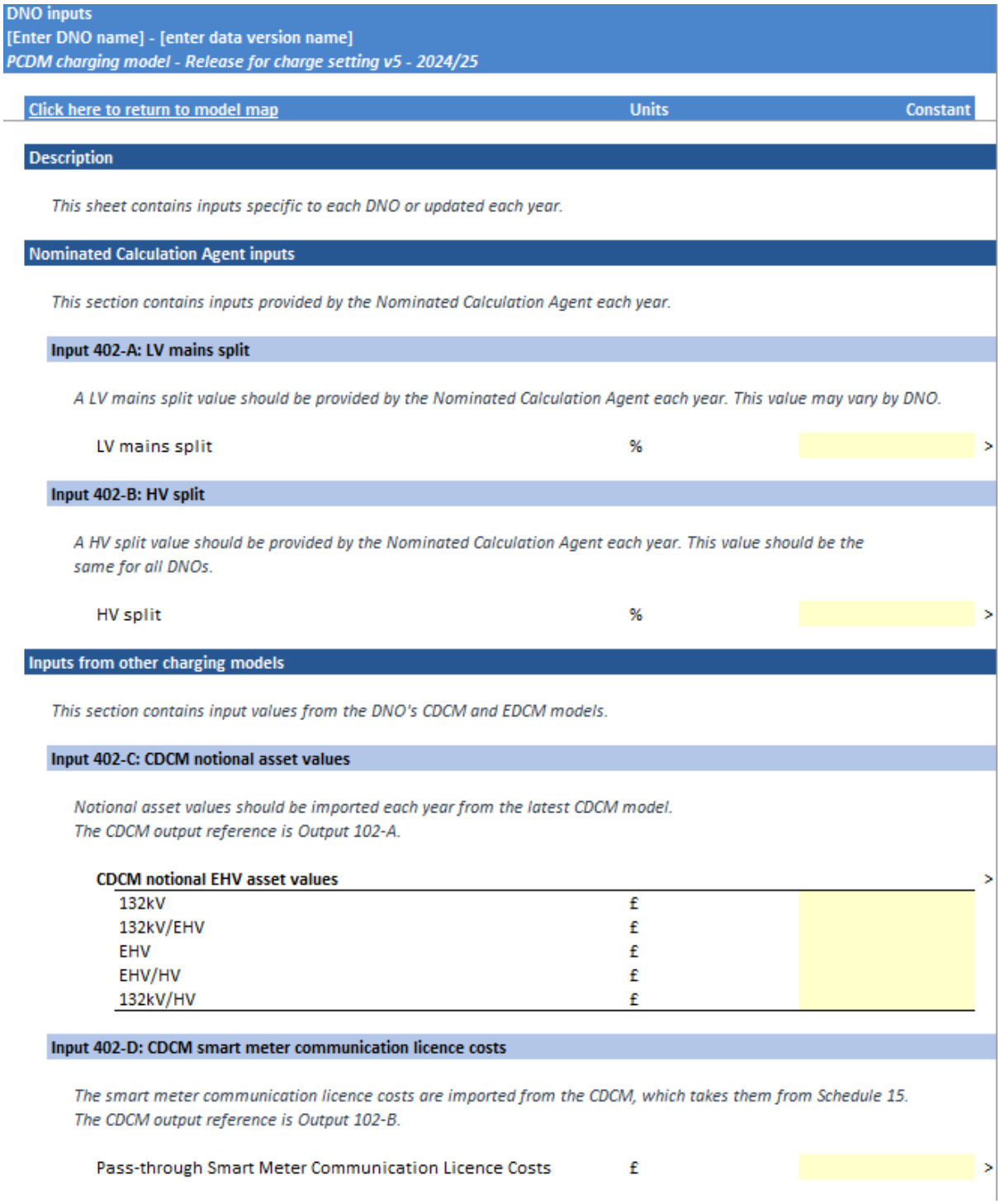
The section covering inputs from other charging models contains notional asset values from the CDCM and EDCM. These values are used for the calculation of the "EHV reduction rate," which is applied in the calculation of CDCM discounts. DNO Parties should populate these values to match the values in their respective EDCM and CDCM models. The relevant values are summarised in the "Output to other models" sheet of each model.

Neither the model the nor the legal text specify within them how to determine the price indexation inputs applied to Pass-through Smart Meter Communication Licence Costs in the PCDM. Care should be taken when populating the PCDM to ensure that the price index values inputted by the DNO (for 2007/8 and the 'current charging year') are appropriate, meeting the Paragraph 11C requirements.

Figure 6.1 below shows a screenshot of part of the "DNO Inputs" sheet, highlighting the sections with values provided by the Nominated Calculation Agent and values that come from the other charging models.

Note that the cost input for Ofgem licence fees should be added in Input 402-I, rather than Input in 402-J (e.g., as a total rather than by network levels). The allocation of the entire cost to the LV Services level happens in the "Expenditure" tab in the model. Smart meter communication licence costs are entered into Input 402-D as an input from the CDCM.

*Figure 6.1: Example of part of the "DNO Inputs" sheet*



DNO inputs
[Enter DNO name] - [enter data version name]
*PCDM charging model - Release for charge setting v5 - 2024/25*

Click here to return to model map | Units | Constant

**Description**

*This sheet contains inputs specific to each DNO or updated each year.*

**Nominated Calculation Agent inputs**

*This section contains inputs provided by the Nominated Calculation Agent each year.*

**Input 402-A: LV mains split**

*A LV mains split value should be provided by the Nominated Calculation Agent each year. This value may vary by DNO.*

| | | | |
|---|---|---|---|
| LV mains split | % | | > |

**Input 402-B: HV split**

*A HV split value should be provided by the Nominated Calculation Agent each year. This value should be the same for all DNOs.*

| | | | |
|---|---|---|---|
| HV split | % | | > |

**Inputs from other charging models**

*This section contains input values from the DNO's CDCM and EDCM models.*

**Input 402-C: CDCM notional asset values**

*Notional asset values should be imported each year from the latest CDCM model.*
*The CDCM output reference is Output 102-A.*

| CDCM notional EHV asset values | | | > |
|---|---|---|---|
| 132kV | £ | | |
| 132kV/EHV | £ | | |
| EHV | £ | | |
| EHV/HV | £ | | |
| 132kV/HV | £ | | |

**Input 402-D: CDCM smart meter communication licence costs**

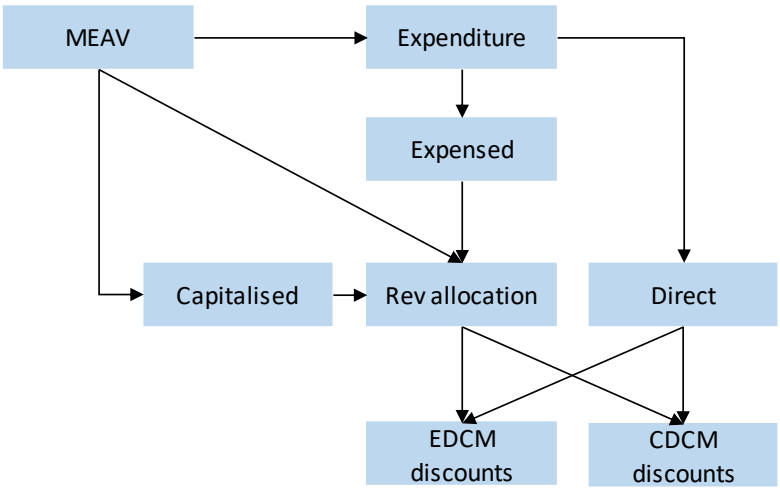
*The smart meter communication licence costs are imported from the CDCM, which takes them from Schedule 15.*
*The CDCM output reference is Output 102-B.*

| | | | |
|---|---|---|---|
| Pass-through Smart Meter Communication Licence Costs | £ | | > |

## 7. CALCULATIONS

The PCDM contains eight calculation sheets, six of the sheets contain calculations for steps used to calculate both CDCM and EDCM discounts before flowing into one final sheet for the discounts applied in each methodology.

*Figure 7.1: CDCM model calculations, high-level flow*




The "MEAV" sheet contains analysis of asset values used to allocate expenditure to network levels in the "Expenditure" and "Rev allocation" sheets. It also calculates the EHV reduction rate used to adjust CDCM discount calculations for assets remunerated through EDCM charges.

The "Expenditure" sheet combines the analysis of MEAV with historic data to calculate allocations of expenditure by network level. Those allocations are used on the "Expensed" sheet and combined with DCUSA text assumptions of the share of expenditure capitalised to calculate network-level shares of an operating expenditure portion of allowed revenue on the "Rev allocation" sheet. The "Capitalised" sheet similarly calculates values used to allocate a depreciation and return portion of allowed revenue to network levels on the "Rev allocation" sheet.

Percentage allocations to network levels from the "Rev allocation" sheet flow through to the "EDCM discounts" and "CDCM discounts" sheets to produce the final discounts. Values from the "Direct" sheet are used to split the allocation between the LDNO and DNO in cases where the LDNO boundary is at a network circuits level, rather than a transformation level.

The subsections below provide more detail on the calculations and assumptions used in each calculation sheet.

## 7.1. MEAV

The MEAV sheet contains calculations used to allocate expenditure based on modern equivalent asset values (MEAV), including an adjustment applied to EHV and 132kV assets, which is used in the CDCM user discounts: the "EHV reduction rate."

The MEAV sheet calculates the MEAV for each network level using the following inputs:

- asset counts (or km as appropriate) for 85 asset categories;
- per asset (or km as appropriate) MEAV values for each asset category; and
- a mapping from the DCUSA text for each asset category to one of five network levels: (i) LV services; (ii) LV mains; (iii) HV/LV; (iv) HV; or (v) EHV and 132kV.

Network level-specific MEAV values are divided by the MEAV for all network levels to produce MEAV shares used as part of allocation of expenditure to network levels.

For the calculation of EDCM discounts only, MEAV values and shares are also calculated for the following more granular breakdown of network levels, using a separate mapping from the DCUSA text: (i) EHV/HV; (ii) EHV; (iii) 132kV/EHV; and (iv) 132kV.

In calculating the MEAV asset values for the CDCM discounts, an adjustment is calculated and applied to the MEAV value for the EHV and 132kV level by multiplying it by a "EHV reduction rate." The same adjustment is made to the net capex allocation on the "Capitalised" sheet. This adjustment was introduced as part of DCP 118, which sought to avoid double counting of EHV assets already covered by EDCM user charges. The adjustment factor is calculated based on notional asset values for the EHV and 132kV network levels in the CDCM and the total value of assets charged to users in the EDCM.[3]

*Table 7.1: Summary of values exported from the "MEAV" sheet*

| Destination sheet | Values exported |
|---|---|
| Capitalised | EHV reduction rate |
| Expenditure | MEAV shares (LV services, LV mains, HV/LV, HV, and EHV and 132kV)<br>LV services share of LV MEAV |
| Rev allocation | MEAV shares (EHV/HV, EHV, 132kV/EHV and 132kV) |

## 7.2. Expenditure

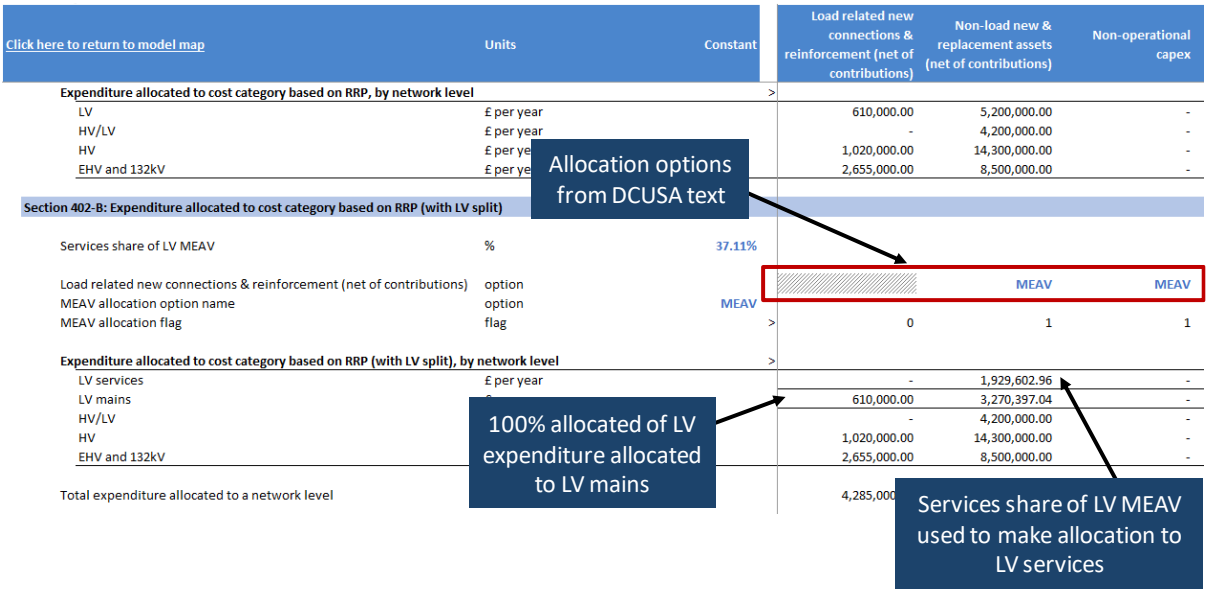
The "Expenditure" sheet contains calculations to allocate expenditure (primarily drawn from the DNO Parties' 2008/9 regulatory reporting pack (RRP)) to different network levels.

[3] The value of assets charged to EDCM users includes: (i) shared network assets allocated to demand; and (ii) sole use assets for both demand and generation. No shared network assets are allocated to generation.

Some expenditure values are already allocated to the following four network levels: (i) LV; (ii) HV/LV; (iii) HV; and (iv) EHV and 132kV. Values allocated to the LV level are split between the LV services and LV mains levels based on the treatment of costs indicated in the "Allocation rules" table in DCUSA Schedule 29.

Where the allocation key column of the table notes "MEAV," values are split between LV services and LV mains based on the relative shares of LV services and LV mains compared to the total LV MEAV value, as calculated on the "MEAV" sheet. Where the allocation key does not indicate "MEAV," the full value is allocated to LV mains. This step is not set out in the DCUSA text but is needed for the calculation of CDCM discounts and is noted in Annex A of this user guide. The only exceptions to this are the "Non-activity costs and reconciling amounts – Ofgem licence fees" and "Pass-through Smart Meter Communication Licence Costs" expenditure categories, both of which are directly allocated to the LV Services network level. Where expenditure allocated to a network level does not reach the total for that expenditure category (or exceeds it), the difference is allocated based upon the Allocation key in the "Allocation rules" table in DCUSA Schedule 29. Where "MEAV" is indicated in the allocation rules column of that table, values are allocated to network levels based upon its MEAV share calculated on the MEAV sheet. Given the application of the EHV reduction rate to the allocation of assets to the "132kV and EHV" level MEAV for the CDCM discounts, the expenditure allocations for EDCM and CDCM discounts are slightly different. Figure 7.2 below shows a worked example of this from the "Expenditure" sheet using published DNO data.

*Figure 7.2: Example of allocation of LV expenditure to LV services*




The PCDM allows DNO Parties to input expenditure allocations in each of the 35 expenditure categories in the PCDM but in practice this is only relevant for five categories:

- "Load related new connections & reinforcement (net of contributions);"
- "Non-load new & replacement assets (net of contributions);"

- "Faults;"
- "Inspections, & Maintenance;" and
- "Tree Cutting."

Other than allocating the balance of RRP expenditure by MEAV and allocating Ofgem licence fees and smart meter communication licence costs to LV services, there is no mechanism for the difference between allocated expenditure and the category total to be allocated to a network level. As such, only some of the 35 total expenditure categories can have positive values and the total expenditure allocation to network levels is unlikely to reconcile with the total in the RRP. The implication of the above is that any surplus/deficit is assumed to be spread across network levels based on the relative size of their total expenditure allocations.

This sheet applies inflation indices to smart meter communication licence costs, to scale them back to 2007/08 prices. This is set out in the legal text, which defines a Price Index Adjuster as follows:

$$\text{Price Index Adjuster} = \frac{\text{PI}_{2007/08}}{\text{PI}_{\text{t}}}$$

$\text{PI}_{2007/08}$ is the price index for 2007/08 and $\text{PI}_{\text{t}}$ is the price index for the year for which charges are being set. This adjuster would be expected to be less than 1. Smart meter communication licence costs are *multiplied* by this value, which leads to the cost used in the expenditure calculations being lower than the input cost. In the model, we have instead divided the input values by the *inverse* Price Index Adjuster $\text{PI}_{\text{t}} / \text{PI}_{2007/08}$. This is exactly equivalent to multiplying by the Price Index Adjuster.

*Table 7.2: Summary of values exported from the "Expenditure" sheet*

| Destination sheet | Values exported |
|---|---|
| Expensed | Total expenditure allocated, by network level and cost category (for EDCM discounts and for CDCM discounts) |
| Direct | Total expenditure allocated by cost category for EDCM discounts for the EHV and 132 kV levels<br>Total expenditure allocated by cost category for CDCM discounts for the LV services, LV mains and HV levels |

## 7.3. Expensed

The "Expensed" sheet contains calculations of the "expensed portions," which are used on the "Rev allocation" sheet to allocate an assumed operating expenditure portion of allowed revenue to network levels.

The expensed portions are calculated based on the total expenditure allocated by category and network level from the "Expenditure" sheet and a "percentage capitalised" value

(specified in the Allocation rules table of DCUSA Schedule 29), which varies by cost category. The percentage capitalised is used to remove the "capitalised" portion of expenditure (approximating capital expenditure). The remaining values (approximating operating expenditure) are then summed for each network level and across all network levels. The expensed portion per network level is calculated as the network level value divided by the value across all network levels. As such, the expensed portions can be seen to approximate the share of operating expenditure at each network level.

Two expenditure categories have a 100% capitalisation rate specified in the legal text: "Load related new connections & reinforcement (net of contributions)" and "Non-load new & replacement assets (net of contributions)." As such, expenditure values in those categories do not flow through to the expensed portions values. Other expenditure categories have capitalisation rates between 0% and 100%, meaning only a portion of the value calculated on the "Expenditure" sheet is used.

*Table 7.3: Summary of values exported from the "Expensed" sheet*

| Destination sheet | Values exported |
|---|---|
| Rev allocation | Expensed portions (for EDCM discounts)<br>Expensed portions (for CDCM discounts) |

## 7.4. Capitalised

The "Capitalised" sheet contains calculations of "capitalised portions," which are used on the "Rev allocation" sheet to allocate an assumed depreciation and return on regulatory asset value elements portion of allowed revenue to network levels.

DNO net capex values (calculated outside the PCDM) are mapped to the network levels used to calculate user discounts. This mapping is required to split net capex input values for LV between LV mains and LV services (using a percentage split provided by the DNO) and to combine EHV and 132kV values. EHV and 132kV values used for the CDCM discounts are also multiplied by the EHV reduction rate calculated on the "MEAV" sheet. As such, like the "expensed portions" values calculated on the "Expensed" sheet, the shares of net capex allocated to different network levels differ slightly between the EDCM discounts and the CDCM discounts.

Following mapping to the appropriate network levels, capitalised portions are calculated as the value for each network level divided by the total for each network level.

*Table 7.4: Summary of values exported from the "Capitalised" sheet*

| Destination sheet | Values exported |
|---|---|
| Rev allocation | Capitalised portions (for EDCM discounts)<br>Capitalised portions (for CDCM discounts) |

### 7.5. Rev allocation

The "Rev allocation" sheet contains calculations of revenue allocations to each network level. This is done in five main steps:

1. **Calculate shares of allowed revenue by network level**: Expensed and capitalised portions are combined based on the relative size of aggregate operating allowances compared to aggregate depreciation and return allowances over a five-year period (2005/06 to 2009/10).
2. **Calculate 2007/08 revenues by network level**: Shares of allowed revenue calculated in step 1 are applied to 2007/08 allowed revenue after removing elements not allocated to specific network levels. The elements not allocated to specific network levels (transmission exit charges and net incentive revenue) are referred to as "Revenue not to share." Additional revenues (relating to customer contributions) are also allocated to network levels based on expensed portions.
3. **Calculate units flowing by network level**: Units flowing (loss-adjusted to LV) are calculated for each network level in line with an approach set out in the DCUSA text.
4. **Calculate revenue per unit**: Revenue allocations to specific network levels are rescaled using the volumes loss-adjusted to LV to give values for revenue to share per unit, making the values more representative of a contribution to an all-the-way tariff. The value of "Revenues not to share" is rescaled using the units flowing calculated for the EHV and 132kV level, giving "revenue not to share per unit."
5. **Calculate percentage allocations**: Percentage allocations are calculated by dividing the revenue per unit for each network level by the sum of the revenue to share per unit values for all network levels and the revenue not to share per unit. The "revenue not to share per unit" value is also divided by the same number.

One further step is applied for the EDCM discounts to map the percentage allocations to a different set of network levels: LV services and LV mains values are combined to give a single LV value; and the EHV and 132kV value is split between EHV/HV, EHV, 132kV/EHV and 132kV based on the MEAV shares calculated on the "MEAV" sheet.

*Table 7.5: Summary of values exported from the "Expensed" sheet*

| Destination sheet | Values exported |
|---|---|
| EDCM discounts | Allocation by network level for EDCM discounts (132kV, 132kV/EHV, EHV EHV/HV, HV, HV/LV and LV)<br>Revenue not to share allocation for EDCM discounts |
| CDCM discounts | Allocation by network level for CDCM discounts (LV services, LV mains, HV/LV and HV) |

## 7.6. Direct

This sheet includes calculations of "Direct proportions." Values for HV and LV are used for CDCM discounts. The value for EHV and 132kV is used for EDCM discounts.

Direct proportions are calculated for the network circuits levels where LDNOs might have their boundaries, as shown in Table 7.6 below.

*Table 7.6: Charging methodologies used based on voltage of customer connection*

| Voltage of customer connection | 132kV | 132kV/EHV | EHV | EHV/ HV | HV | HV/LV | LV |
|---|---|---|---|---|---|---|---|
| Circuits level | **Yes** | | **Yes** | | **Yes** | | **Yes** |
| Charging methodology used | EDCM | | | | CDCM | | |

Direct proportions are calculated for a given network circuits level and represent the share of total expenditure allocated in the "Expenditure" sheet that is classified as "Direct cost" in the "Allocation rules" table of DCUSA Schedule 29, relative to all expenditure allocated to that network level.

For LDNOs with a boundary that is at a transformation level, the percentage allocation for that level calculated on the "Rev allocation" sheet is excluded from the calculation of discounts. Where the boundary, however, is at a circuits level, part of the allocation is included in discounts based on a split of network length between the LDNO and the DNO Party. The direct proportions values calculated on this sheet are used to add to the discounts some of the DNO Party's share: the part of expenditure that is not "direct."

As noted above, only up some of the 35 expenditure categories have positive values allocated to them on the "Expenditure" sheet. 18 expenditure categories are marked as "Direct" but only six of those should be expected to have a positive value included in this calculation: the five noted above where values are allocated to specific network levels plus Non-operational capex.

*Table 7.7: Summary of values exported from the "Direct" sheet*

| Destination sheet | Values exported |
|---|---|
| EDCM discounts | EHV and 132kV direct proportion |
| CDCM discounts | HV direct proportion<br>LV direct proportion |

## 7.7. EDCM discounts

This sheet calculates EDCM user discounts using allocation percentages from the "Rev allocation" sheet to determine the share of allowed revenue covered in all-the-way charges and the share allocated to the LDNO. The discounts for generation users are assumed to be

equal to demand at one level below the point they are connected to the LDNO's embedded network.

EDCM user discounts have up to four main components:

1. "S" is the sum of the allocation percentages for networks levels between the end user and the GSP. The network level of the end user is included for demand but not for generation, meaning that discounts for generation are equivalent to those for demand connected one level above them (e.g., discounts for LV substation demand are the same as discounts for LV generation).
2. "P" is the sum of the allocation percentages for networks levels between the DNO-LDNO boundary and the end user, excluding the level of the LDNO boundary.
3. "P adder" is an additional term in the case of the 132kV and EHV network boundary levels to include a discount for all costs at the boundary level except the assumed "Direct proportion" of costs provided by the DNO.
4. "U" is the allocation percentage for the revenue not to share.

EDCM discounts are calculated using the parameters set out above as follows and then capped at 100 percent.

$$EDCM\ discount = \frac{P + P\ adder}{S + U}$$

EDCM discounts are lower for LDNOs with boundaries at a lower network level (reflecting a greater share of costs being covered by the DNO) and higher for LDNO users with a higher network level (reflecting that costs at lower network levels are assumed to not be reflected in user tariffs).

*Table 7.8: Summary of values exported from the "EDCM discounts" sheet*

| Destination sheet | Values exported |
|---|---|
| Outputs | PCDM user discount for EDCM, by end user type and LDNO boundary type. |

## 7.8. CDCM discounts

The "CDCM discounts" sheet contains calculations of PCDM discounts for the CDCM model.

While the implementation of the calculations on this sheet is precisely in line with the DCUSA legal text, the intuition behind them is the same as for the EDCM discounts. The formulae set out in the legal text are effectively condensed versions of the more generalisable approach implemented on the "EDCM discounts" sheet.

While the intuition behind the calculations on the "CDCM discounts" sheet is like that on the "EDCM discounts" sheet there are two main points of difference:

1. Network split values are not set to 100% in the legal text.

2. There is no differentiation in discounts between demand users and generation users.

### 7.8.1. Network split values

CDCM discounts use "HV split" and "LV mains split" values provided by the Nominated Calculation Agent. The equivalent values used for the EDCM discounts (a network length split for 132 kV and a network length split for EHV) are simply set to 100% by the legal text.

This approach means that for the LDNO boundary level, CDCM discounts include:

- a full discount of costs for the share of the network assumed to be provided by the LDNO; and
- a discount for non-direct costs for the share of the network assumed to be provided by the DNO.

This is illustrated in the following table.

*Table 7.9: Summary of discounts applied at the LDNO boundary levels that are circuit levels*

| | Share provided by DNO (split %) | Share provided by LDNO (1 – split %) |
|---|---|---|
| Direct share (direct proportion %) | Not discounted | **Discounted** |
| Non-direct share (1 – direct proportion %) | **Discounted** | **Discounted** |

In addition to the above, the calculation of the HV split and LV mains split values specified in the legal text are different, with HV using the length of network up to the LDNO boundary and LV mains using the length of network after the LDNO boundary. These two approaches are equivalent under the assumption that the total length of network to LDNO-connected users is the same as for DNO-connected users.

### 7.8.2. Differentiation between demand and generation

Unlike the EDCM discounts calculated in the PCDM, the CDCM discounts do not differentiate between demand and generation users. Instead, Schedule 16 specifies explicit discounts to be applied for generation users.

*Table 7.10: Summary of values exported from the "CDCM discounts" sheet*

| Destination sheet | Values exported |
|---|---|
| Outputs | PCDM user discount for CDCM, by end user type and LDNO boundary type. |

# 8. OUTPUTS

The PCDM contains one output sheet, called "Output to other models," which simply contains two outputs:

1. PCDM user discounts for the EDCM; and
2. PCDM user discounts for the CDCM.

Figure 8.1 below shows a screenshot of the sheet from an unpopulated model.

*Figure 8.1: Example "Output to other models" sheet*

**Output to other models**
**[Enter DNO name] - [enter data version name]**
***PCDM charging model - Final release v1 - 2019/20***

| Click here to return to model map | Units | Constant | Legal text reference |
|---|---|---|---|

**Description**

*This sheet presents the final outputs of the PCDM.*

**DCUSA text outputs**

*The outputs set out below are used as inputs to the DNO's CDCM and ECDM models in line with the DCUSA text.*

**Output 401-A: PCDM user discount for CDCM**

*These user discounts are used as Input 104-B on the "General inputs" sheet of the CDCM.*

| PCDM user discount for CDCM | | |
|---|---|---|
| LDNO LV: LV user | % | 0.00% |
| LDNO HV: LV user | % | 0.00% |
| LDNO HV: LV Sub user | % | 0.00% |
| LDNO HV: HV user | % | 0.00% |

**Output 401-B: PCDM user discount for EDCM**

*These user discounts are used on the "General inputs" sheet of the EDCM (LRIC) and EDCM (FCP) models.*
*The input reference for the EDCM (LRIC) model is Input 202-G; it is Input 302-G for the EDCM (FCP) model.*

| Boundary 0000 discount percentages, by tariff type | | |
|---|---|---|
| LV demand | % | 0.00% |
| LV Sub demand or LV generation | % | 0.00% |
| HV demand or LV Sub generation | % | 0.00% |
| HV generation | % | 0.00% |

| Boundary 132kV discount percentages, by tariff type | | |
|---|---|---|
| LV demand | % | 0.00% |
| LV Sub demand or LV generation | % | 0.00% |
| HV demand or LV Sub generation | % | 0.00% |
| HV generation | % | 0.00% |

| Boundary 132kV/EHV discount percentages, by tariff type | | |
|---|---|---|
| LV demand | % | 0.00% |
| LV Sub demand or LV generation | % | 0.00% |
| HV demand or LV Sub generation | % | 0.00% |
| HV generation | % | 0.00% |

| Boundary EHV discount percentages, by tariff type | | |
|---|---|---|
| LV demand | % | 0.00% |
| LV Sub demand or LV generation | % | 0.00% |
| HV demand or LV Sub generation | % | 0.00% |
| HV generation | % | 0.00% |

| Boundary HVplus discount percentages, by tariff type | | |
|---|---|---|
| LV demand | % | 0.00% |
| LV Sub demand or LV generation | % | 0.00% |
| HV demand or LV Sub generation | % | 0.00% |
| HV generation | % | 0.00% |

**End of sheet**

The EDCM user discounts should be inputted to the DNO's EDCM model on the "General inputs" sheet. There are 16 discount percentages calculated in the PCDM: one for each of the four user categories for four LDNO boundary categories. The values presented in a 4x4 block

on the “EDCM discounts” sheet are presented in a single column to remove the need for such a transformation within the EDCM model.

The CDCM user discounts should be inputted to the DNO’s CDCM model on the “General inputs” sheet. There are four discount percentages calculated in the PCDM: one for LDNOs with a LV boundary and three for LDNOs with a HV boundary.

*Table 8.1: Summary of values exported from the “Outputs” sheet*

| Destination sheet | Values exported |
|---|---|
| EDCM “General inputs” | PCDM user discount for CDCM, by end user type and LDNO boundary type. |
| CDCM “General inputs” | PCDM user discount for EDCM, by end user type and LDNO boundary type. |

## ANNEX A ASSUMPTIONS LOG

The following table sets out a series of assumptions that have been made to produce the current version of the PCDM. The assumptions here help to clarify or serve to amend the version of DCUSA text and any DCPs noted in Section 1 of this user guide. Each assumption has been approved by DCUSA Ltd with the consent of DNOs.

*Table A.1: Assumptions log*

| DCUSA text reference | Assumption | Worksheet reference | Description |
|---|---|---|---|
| Schedule 29, paragraphs 4 (a), 5 (a), 6, 7, 29, 30, 31, 32 | Operating expenditure terminology | - | In these paragraphs, the DCUSA text refers to "operating expenditure" for values that would in fact be better described simply as "expenditure" as they contain both capex and opex.<br>It has been assumed that in these cases, "operating expenditure" can be interpreted as "expenditure" with no further adjustment required to convert expenditure values to "operating expenditure." |
| Schedule 29, paragraphs 6 and 9 | Expenditure split between LV services and LV mains | "Expenditure" sheet | There is no legal text describing how expenditure values allocated to the LV level are split between LV services and LV mains.<br>Consistent with the approach implemented in the charging models to date, it has been assumed that these values must be split based on the relative MEAV value for LV services and LV mains, where "MEAV" is indicated in the "Allocation rules" table. Where "MEAV" is not indicated in the "Allocation rules" table (such as for "Load related new connections & reinforcement (net of contributions"), values must be fully allocated to LV mains. |
| Schedule 29, paragraph 46 | U | "EDCM discounts" | Paragraph 46 currently defines the variable "U" as follows:<br>*"U is the ratio of the sum of the DNO Party's total incentive revenue and the transmission exit charge, and the DNO Party's total Allowed Revenue including any incentive revenue and transmission exit charge."* |

| DCUSA text reference | Assumption | Worksheet reference | Description |
|---|---|---|---|
| | | | To retain consistency with the approach applied to shares of the all-the-way tariffs allocated to network levels, it was assumed that for the development of the new PCDM the definition of "U" in Paragraph 46 could be assumed to be as follows:<br>*"U is the percentage that the [Revenue not to share per unit] represents of the sum of the [Revenue to share per unit] across all network levels and the [Revenue not to share per unit]."* |
| Schedule 29, paragraph 11A | Interaction of Paragraph 11A with earlier paragraphs in Schedule 29 | "Expenditure" sheet | It has been assumed that the direct allocation to LV Services happens *after* the allocation to network levels within the RRP and after the allocation to network levels by MEAV.<br>This assumes that the "Ofgem licence fees" input is a single value to be entered into Input 402-I, rather than values which vary across voltage level to be entered into Input 402-J. Similarly, Smart meter communication licence costs are added in Input 402-D, rather than Input 402-J.<br>It has therefore been assumed that Paragraph 11A is enacted within Paragraph 6, and that any subsequent mentions in Schedule 29 of allocated operating costs refer to those as allocated by Paragraph 6 *and* Paragraph 11A. This means that this part of the legal text is non-linear. |

| DCUSA text reference | Assumption | Worksheet reference | Description |
|---|---|---|---|
| Schedule 29, paragraph 11A | Direct and Indirect costs within Paragraph 11A | "Direct" sheet | It is assumed that the "direct cost indicators" for Ofgem licence fees and smart meter communication licence costs are 0, but for all other non-activity costs it is 1. This means that these costs are treated as an indirect cost, and the other non-activity costs are treated as direct costs.<br>This assumes that, within this part of the legal text, references to expenditure being "directly allocated" refer to direct allocation to LV services in the context of Paragraph 6, rather than direct and indirect cost in the context of Paragraphs 29-32.<br>Paragraph 11A explicitly specifies that Ofgem licence fees are treated as indirect costs and therefore the indicator is 0. 11B specifies the same for Smart meter communication licence costs. As the legal text does not specify the direct cost indicator for the other costs, this was assumed to be 1, as this is consistent with the previous versions of the legal text. |

In addition to the above, the following table highlights areas of the DCUSA legal text relating to the PCDM that may benefit from clarification in the future or which may be of assistance when interpreting the DCUSA legal text.

*Table A.2: Other points of interpretation*

| DCUSA text reference | Assumption | Worksheet reference | Description |
|---|---|---|---|
| Schedule 29, paragraph 2 | List of network levels | - | A list of the levels into which the DNO's network is split does not acknowledge that the combined EHV and 132kV level is split into four levels for the calculation of EDCM discounts. |
| Schedule 29, paragraph 3 | List of CDCM discount calculation steps | - | This paragraph sets out a list of steps that the calculation of CDCM discounts includes. This list is high-level and non-comprehensive and is not assumed to have any impact on the calculations. |
| Schedule 29, paragraph 4 | List of CDCM discount inputs | - | This paragraph sets out a list of inputs for the calculation of CDCM discounts. The list, however, is high-level and non-comprehensive. As such, it has been assumed that omissions from the list or inputs referred to, but not used, can be ignored. |
| Schedule 29, paragraph 5 | EDCM discount steps | - | This paragraph notes that the calculation of EDCM discounts is a two-part process but then only goes on to describe what it refers to as the first part of the process: allocating allowed revenue to network levels. It has been assumed that it is not an issue that this part of the legal text, which appears to be introductory in nature, does not appear to describe the second part of the process. |
| Schedule 29, Allocation rules table | Blank percentages capitalised | - | The table contains no value in the "Percentage capitalised" column for some cost categories. It has been assumed that no value is equivalent to specifying a rate of zero. Currently in each case where there is a blank, the value it would be applied to is equal to zero, so this assumption has no impact. |
| Schedule 29, Allocation rules table | Percentage capitalised for pension deficit payments | - | The table contains a value in the "Percentage capitalised" column for pension deficit payments but under the current methodology there are no cases where this value has an impact. |

| DCUSA text reference | Assumption | Worksheet reference | Description |
|---|---|---|---|
| | | | This result arises as no DNO Party allocates any pension deficit payments to specific network levels and the "Allocation key" column of the table indicates "Do not allocate," meaning that the 2007/8 RRP value is not split across levels based on the relative MEAV value calculated for each network level. |
| Schedule 29, paragraph 14 | LV/HV vs. HV/LV | - | The reference to "LV/HV" can be interpreted as equivalent to "HV/LV," the terminology used elsewhere. |
| Schedule 29, paragraphs 26 and 46 | Multiple "U" variables | "Rev allocation" sheet | Schedule 29 refers to two variables named "U". Given their different roles in the methodology are quite different (one deals with adjustments for losses, while the other deals with the share of revenue not discounted) it has been assumed that their scope is limited to their respective paragraphs and that there is no interaction between them. |
| Schedule 29, paragraph 38 | Allocations to the 132kV/EHV substations level in Scotland | - | This paragraph notes that the percentage allocated to the EHV and 132kV level is split into four levels. In doing so, it notes in parentheses that the "132kV circuits" and "132kV/EHV substations" levels are "England and Wales only."<br>The two Scottish DNOs currently do have positive asset counts for assets that are mapped to the 132kV/EHV substations level: "33kV circuit breaker, indoors" and "33kV circuit breaker, outdoors." The basis for this mapping is set out in the "MEAV EDCM mapping" table.<br>If those two asset types would otherwise be mapped to the EHV level, no impact on PCDM discounts for the Scottish DNOs has been identified as the movement between those two categories would only affect "EDCM boundary 132kV/EHV" and "EDCM boundary 132kV/EHV" discounts, which are not applied in Scotland.<br>Given the above, no restriction has been made to stop these values flowing through for Scottish DNOs. |

| DCUSA text reference | Assumption | Worksheet reference | Description |
|---|---|---|---|
| Schedule 29, multiple paragraphs | Price base of financial value inputs | “DNO inputs” sheet | The DCUSA text does not specify the price base in which DNO Parties must state financial values. It has been assumed, therefore, that the onus is on DNO Parties to ensure that their input values are consistent with appropriate use of inflation adjustments, where necessary. |