

EDCM Method M model Description of the Model for DCP 231

1. This document describes an EDCM method M model developed for the DCP 231 Working Group. The reference version for comparison is the extended price control disaggregation model published by the DCUSA Panel in 2013.

Cosmetic and structural changes

2. The cosmetic and structural changes made in recent versions of the CDCM method M model have been applied to create the DCP 231 model, with the exception of changes related to DCP 118 (DCP 118 does not apply to EDCM method M, and there is no other change with an equivalent effect).
3. In particular:
 - (a) The calculations are now linked through the model so that changes in input data feed directly through to the results (provided that Microsoft Excel is configured for automatic calculation, which is the default).
 - (b) VBA macros have been removed.
 - (c) ActiveX controls (which only work with Microsoft Excel for x86/x64 versions of Windows) have been replaced with ordinary Microsoft Excel form controls (compatible with all versions of Microsoft Excel).
 - (d) The Change Log sheet has been removed. This seemed inaccurate, and could not in any event be updated given that version numbers and publication dates are not known at the time of developing the model.
 - (e) There is a new Index sheet, which also contains some workbook operating instructions.
 - (f) The LR1 Refs sheet has been removed. The relevant calculations are now included in the Calc-Net capex to improve structure.
 - (g) There is a new Data-MEAV sheet, which contains input data that were previously on Calc-MEAV.
 - (h) There is a new Reductions to net capex sheet, which contains input data that were previously on Calc-Net capex of the UKPN models.
 - (i) The sheet “Outputs” has been renamed “EDCM discounts” and relocated to the right end of the workbook.
 - (j) The “Input” sheet and all calculation sheets are now protected. Cells that are for input data are unlocked. Note that the [Network length split for 132kV] and [Network length split for EHV], which are set to 100 per cent by paragraph 25.17 of the methodology, are not treated as input data.

Substantive changes to implement DCP 231

4. In sheet Calc-Opex, row 7, the following formulas have been changed (cell references are to the locations in the new model):

Table 1 First set of changes to row 7 of Calc-Opex sheet

Cell	Previously	Now
E7	=RRP 2.4!L13+RRP 2.4!L14+RRP 2.4!L18+RRP 2.4!L19	=MAX(0,'Calc-Net capex'!C21+'Calc-Net capex'!C22)/10+RRP 2.4!L18+RRP 2.4!L19
F7	=RRP 2.4!L12+RRP 2.4!L17-'Calc-Opex'!G7	=MAX(0,'Calc-Net capex'!C20)/10+RRP 2.4!L17
H7	=RRP 2.4!L11+RRP 2.4!L16+RRP 2.4!L24	=MAX(0,'Calc-Net capex'!C19)/10+RRP 2.4!L16+RRP 2.4!L24

5. The purpose of the changes in table 1 is to implement the following steps in the DCP 117/DCP 231 method:
- Use data from the FBPQ LR1 tables to calculate “Load related new connections & customer specific reinforcement” for each network tier. (This excludes general reinforcement). Where customer contributions are greater than the direct costs (i.e. the value is negative) then treat the result as zero. Aggregates over the 10-year period 2005–2015 are converted into an annual figure by dividing by 10.
 - Add the result to the general reinforcement value for the relevant network tier derived from RRP table 2.4. This gives a net cost for each network tier in respect of the costs described as “Load related new connections & reinforcement (net of contributions)”.
6. In sheet Calc-Allocation, row 70, the following formula has been added:

Table 2 Addition to row 70 of Calc-Allocation sheet

Cell	New formula
G70	=(SUM('FBPQ LR1'!D13:M13)-MIN(0,'Calc-Net capex'!C19)-MIN(0,'Calc-Net capex'!C20)-MIN(0,'Calc-Net capex'!C21+'Calc-Net capex'!C22))/10

7. In sheet Calc-Allocation, rows 70 and 75, the following formulas have been changed (cell references are to the locations in the new model):

Table 3 Changes to row 75 of Calc-Allocation sheet

Cell	Previously	Now
F75	=P\$69*K52	=P\$69*K52+\$G70*E49
G75	=P\$69*L52	=P\$69*L52+\$G70*G49
H75	=P\$69*M52	=P\$69*M52+\$G70*H49
I75	=P\$69*(N52+O52)	=P\$69*(N52+O52)+\$G70*(I49+J49)

8. The purpose of the changes in tables 2 and 3 is to implement the following treatment of excess contributions in the DCP 117/DCP 231 method:
- (a) Customer Contributions (reported in FBPQ table LR1) for each network tier that are in excess of the direct costs of “Load related new connections & customer specific reinforcement” are not considered in the allocation of “Load related new connections & customer specific reinforcement” to network tiers. Additionally table LR1 includes customer contributions which are categorised as indirect costs and which are not allocated to a specific network tier.
 - (b) These excess contributions and customer contributions in respect of indirect costs are treated as “income” and added to the income (from use of system charges) allocated by the model.
 - (c) As the bulk of these costs relate to indirect costs, these contributions are aggregated together and allocated to each network tier using the opex cost driver.
9. In sheet Calc-Opex, row 7, the following formula has been changed (the cell reference is to the location in the new model):

Table 4 Additional change to row 7 of Calc-Opex sheet

Cell	Previously	Now
I7	=D7-E7-F7-G7-H7	0

10. The purpose of the changes in table 4 is to implement the principle in the DCP 117/DCP 231 method that all the “Load related new connections & customer specific reinforcement” costs have been allocated either as opex or as additional income as described above, so that there are no residual costs to be allocated in this category.