DCUSA Change Proposal Form

This form is issued in accordance with Clause 10.5 of the DCUSA.

Completed forms should be returned to dcusa@electralink.co.uk for assessment by the DCUSA Panel. Failure to complete all parts of the form may result in it being rejected by the DCUSA Panel.

PART A – Mandatory for all Change Proposals
PART B – Mandatory for Non Charging Methodologies Proposals
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PART D – Guidance Notes

PART A - MANDATORY FOR ALL CHANGE PROPOSALS

Document Control	
CP Status	Standard / ~~Urgent~~
CP Number	DCP 118
Date of submission	14/12/12
Attachments	None
Originator Details	
Company Name	GTC (For and behalf of the Electricity Network Company Limited)
Originator Name	Michael Harding
Category	~~DG / DNO~~ / IDNO / ~~OTSO / SUPPLIER / OTHER~~
Email Address	mike.harding@gtc-uk.co.uk
Phone Number	07920 238095
Change Proposal Details	
CP Title	Allocation of EHV costs in the CDCM price disaggregation model.
Impacted parties	IDNOs and DNOs
Impacted Clause(s)	Schedule 16, steps 96 to 125.
Part 1 / Part 2 Matter	Part 1
Related Change Proposals	N/A

Change Proposal Intent

The intent of this proposal is to modify Price Control Disaggregation Model (described in paragraphs 96 to 125 of Schedule 16) such that it excludes those/ revenues EHV costs which are excluded from the CDCM because the costs revenues are recovered through charges to site-specific EHV charges.

Business Justification and Market Benefits

DNO determine tariffs to LDNOs by applying discount factors to the CDCM all the way tariffs calculated by the CDCM model 100. The discount factors applied to the all the way tariffs are determined using an Excel workbook described as the Price Control Disaggregation Model, alternatively known as '*Method M*'. This takes the price control components of capex, return and operation for DPCR4 and allocates them to different DNO network tiers. The spreadsheet then allocates the revenues between the upstream distributor (the DNO) and the downstream distributor based on the proportion of network that the LDNO and DNO provide in distributing electricity to end customers.

Whilst the CDCM model 100 (used to determine charges to end consumers) only uses EHV costs that relate to providing connections to HV and LV customers (i.e. it excludes EHV costs/ revenues to EHV customers, the Price Control Disaggregation Model utilises total EHV costs, i.e. it includes those EHV costs which relate to providing connections and use of system to EHV site-specific customers.

By using total EHV costs in the Price Control Disaggregation Model, EHV costs used to provide connections to EDCM customers are in addition allocated to CDCM customers connected to IDNO networks. This would appear to be double counting such costs. We believe the effect of this is that the EHV element of costs in the Price Control Disaggregation Model is overstated with the effect that discount factors are understated.

Correcting this flaw in the methodology will result in tariffs that are more likely to be reflective of the relevant costs incurred by CDCM users at different network tiers and thereby reduce any potential distortions in competition.

We have been unable to carry out an impact assessment of these changes since we do not believe we have access to relevant data (i.e. allocations between EDCM and CDCM)

Proposed Solution and Draft Legal Text

Some of the changes to facilitate this change proposal will be in the detail of the 'method M' Excel worksheet which is outside the governance of DCUSA. Nonetheless, we think it useful to indicate where we think the changes to the Method M may need to be made:

1. Modify allowed revenues exclude the allowed revenue for EHV site specific customers from the Price Control Disaggregation Model.
2. Modify the cost drivers used to, allocate return, depreciation and operating costs to network tiers in the '*WPD - Final Allocation'* and the *'Calc – WPD Opex Allocation'* worksheets in the Price Control Disaggregation Model; in particular:
    a. MEAV values used to determine the MEAV cost driver should exclude the relevant proportion of MEAV for EHV assets that relate to assets for EHV site specific customers.
    b. net capex values used to determine the determine return and depreciation should exclude net capex that relate to assets for EHV site specific customers.
    c. customer numbers should exclude EHV site specific customers.
3. Modify the directly allocated EHV costs in the '*Calc-WPD Opex allocation*' work sheet to exclude the EHV costs that relate to EHV site specific customers.

Notwithstanding the above, We acknowledge that the there may be alternative ways of achieving the intent of this proposal.

Additionally, in developing the EDCM DNOs will have determined:

- the EHV MEAV allocated to EDCM customers.
- the allowed revenue allocated to EDCM customers
- the indirect/ direct operational costs allocated to EDCM customers
- the relevant transmission exit charge costs allocated to EDCM customers

This information can be used to determine the relevant percentage of revenues and or expenditure that should be exclude from Method M

Suggested changes to legal drafting are given below. These incorporate drafting changes made as a consequence of DCP096.

"Step 4: Price control disaggregation

96. Step 4 involves calculations based on price control and expenditure data which produce a series of discount percentages to be used to determine portfolio tariffs for LDNOs.

96A For the purpose of this Step 4 (paragraph 96 through to paragraph 125) the price control revenue and the expenditure data referred to in paragraph 96A shall mean the CDCM price control revenue and CDCM expenditure data which shall exclude that part of the price control revenue and expenditure allocated to "*EHV Customers*" (i.e. those end customers who are not subject to their use of system charges being calculated by the CDCM described in this Schedule 16).

97. For the purposes of price control disaggregation the network is split into four levels: LV, HV/LV, HV and EHV. The EHV element only includes expenditure and revenues that relate to providing assets for customers charges under the CDCM.

98. The determination of discount percentages involves the following steps:

a) Allocation of CDCM price control revenue elements to network levels.

b) Determination of a percentage allocation of total CDCM price control revenue per unit to network levels.

c) Determination of the proportion of the LV network deemed to be used by LV-connected embedded networks.

d) Determination of the proportion of the HV network deemed to be provided by HV-connected embedded networks with HV end users.

e) Calculation of the discount percentage for each combination of boundary network level and CDCM end user network level.

f) Application of discount percentages to determine portfolio tariffs.

Allocation of CDCM price control revenue elements to network levels

99. The calculation of percentage allocations of CDCM price control revenues to network levels is based on separate percentages by network level for the operating cost, depreciation and return on the regulatory asset value elements of the DNO Party's allowed revenue that relate to customers charged under the CDCM.

100. In order to determine the allocation to network levels of each element of CDCM price control revenue, the DNO Party uses the costs allocation drivers calculated from the following sources:

a) RRP data on units distributed and operating expenditure broken down by network level and excluding the units distributed to EHV site specific customers and operating expenditure allocated to EHV site specific customers.

b) Data that each DNO Party considers appropriately represents the forecast of net capital expenditure and customer contributions (excluding the net capital expenditure and customer contributions in respect of connections to EHV connections subject to site-specific charges) for the period 2005/06–2014/15, broken down by network level.

c) Forecast data that each DNO Party considers appropriately represents the gross modern equivalent asset values (replacement costs) for various asset types (but excluding the

proportion of modern equivalent asset values of assets used to provide connections to EHV connections subject to site-specific charges).

101. Data from the RRP are used to distinguish between direct and indirect costs, with direct costs coded by network level. For the purpose of this calculation, capital expenditure is included, net of customer contributions, but negative figures are replaced with zero. This analysis provides direct costs percentage for each network level, based on RRP data. The direct cost percentage for LV is denoted "[LV direct proportion]" and the direct cost percentage for HV is denoted "[HV direct proportion]".

102. Indirect operating costs are allocated to network levels on the basis of an estimate of modern equivalent asset value by network level. The operating cost percentage for each level is a weighted average of the direct and indirect percentages. Estimated gross modern equivalent asset values used for this purpose are derived from asset counts and gross modern equivalent asset values (replacement costs) for various asset types.

103. Transmission exit charges are allocated to the EHV network levelnot allocated to any of the voltage tiers. These charges are deducted from the allowed revenue (see paragraph 111).

104. Both the depreciation and return on capital elements of CDCM part of allowed revenue are allocated to network levels on the basis of net capital expenditure data derived from the appropriate capital expenditure forecast. All figures are aggregated over the 10-year period from 2005/2006 to 2014/2015, taking in actual data or forecasts for each year as available.

105. For each network level, the relevant net capital expenditure in respect of CDCM customers is calculated by adding up total condition based replacement (proactive and reactive replacement), combined in the case of LV, HV and EHV with CDCM customers' connections spend minus CDCM customer contributions for connections at that voltage level, general reinforcement capital expenditure at that voltage level, and fault reinforcement capital expenditure at that voltage level. For the avoidance of doubt, this calculation of excludes the net capital expenditure that relates to the provision of assets for EHV customers).

106. Some of these categories allow HV substation and transformer costs to be identified. These costs (and no other costs) are allocated to the HV/LV network level.

107. Some of the expenditure categories do not separately identify HV substation/transformer costs. For these categories costs are allocated to the HV/LV in the same proportion as for the other categories (where these costs are separately identified).

108. Generation-related capital expenditure is not included in the net capex attributable to each network level.

Determination of a percentage allocation of total revenue per unit to network levels

109. The percentage allocation of costs to network levels is determined as a weighted average of the percentage allocation for each of the elements of price control revenue, rescaled by units flowing.

110. The DNO Party determines a breakdown of CDCM price control allowed revenue over the period from 2005/2006 to 2009/2010 between operating expenditure, depreciation and return on regulatory asset value.

111. For the purpose of that calculation, allowed revenue is adjusted by:

a) deducting the net amount earned or lost by the DNO Party under price control financial incentive schemes; ~~and~~

b) Transmission exit charges

c) excluding that part of the price control revenue which has been allocated to EHV customers.

112. These allocations of the operating expenditure, depreciation and return elements of allowed revenue are combined using weights from the price control breakdown.

113. The weighted average allocations are then rescaled by the estimated number of units flowing through each network level (excluding the estimated number of units flowing through the EHV network level to EHV customers), and normalised so that they sum to 100 per cent. The result of this calculation is a set of percentages for each of the LV, HV/LV, HV and EHV network levels.

LV split

114. The DNO Party determines the proportion of the LV network which LV-connected embedded networks are deemed to use by:

a) determining the total length of its LV mains used by LV-connected licensed embedded networks;

b) dividing that total length by the number of end users on LV-connected licensed embedded networks; and

c) dividing the result by the average length of LV network by LV end user on the DNO Party"s own LV network.

115. The result of this calculation is denoted “[LV split]”.

HV split

116. The DNO Parties will procure that the Nominated Calculation Agent estimates the typical proportion of the HV network which is provided by the DNO Party in the case of HV loads supplied through an HV-connected LDNO. This estimate will be based on sample data, and the average used will be the same for all DNO Parties.

117. The proportion is denoted “[HV split]”, and is represented as:

Calculation of discount percentages

118. The discount percentages are determined as follows.

119. For embedded networks with an LV boundary, the discount is equal to:

[LV: LV discount] = [LV allocation]*(1 – [LV split]*[LV direct proportion]).

120. For embedded networks with an HV boundary, three percentage discount figures are used.

121. The percentage discount applicable to tariffs for LV network end users is:

[HV: LV discount] = [LV allocation] + [HV/LV allocation] + [HV allocation]*(1 – HV split]*[HV direct proportion]).

122. The percentage discount applicable to tariffs for LV substation end users is:

[HV: LV Sub discount] = ([HV/LV allocation] + [HV allocation]*(1-[HV split]*[HV direct proportion]))/(1-[LV allocation]).

123. The percentage discount applicable to tariffs for HV end users is:

[HV: HV discount] = [HV allocation]*(1 – [HV split]*[HV direct proportion])/ (1 – [LV allocation] – [HV/LV allocation])

Application of discount percentages to determine portfolio tariffs

124. For demand users, the discount percentages are applied to all tariff components in all-the-way tariffs in order to determine embedded network portfolio tariffs.

125. For generation users, the unit rate element (p/kWh) is not discounted, reflecting the modelling assumption that generation benefits are seen at the voltage level above the Exit Point, and therefore the embedded LDNO simply "passes on" the benefits seen at the DNO Party level. The fixed charge element (p/day) is discounted at 100 per cent, as this tariff component in the all-the-way tariff recovers costs associated with the allocation of other expenditure to service assets, which are not provided by the DNO Party."

Proposed Implementation Date

Earlier implementation preferred since the current arrangements reduce margins available to IDNOs.

Impact on Other Codes

Please tick the relevant boxes and provide any supporting information.

BSC	☐
CUSC	☐
Grid Code	☐
MRA	☐
Other	☐
None	☒

If other please specify

Environmental Impact

None Identified
Confidentiality
None

PART B – MANDATORY FOR NON CHARGING METHODOLOGIES CHANGE PROPOSALS

DCUSA Objectives
General Objectives: Please tick the relevant boxes. ☐ 1 The development, maintenance and operation by the DNO Parties and IDNO Parties of efficient, co-ordinated, and economical Distribution Networks ☐ 2 The facilitation of effective competition in the generation and supply of electricity and (so far as is consistent therewith) the promotion of such competition in the sale, distribution and purchase of electricity ☐ 3 The efficient discharge by the DNO Parties and IDNO Parties of obligations imposed upon them in their Distribution Licences ☐ 4 The promotion of efficiency in the implementation and administration of this Agreement
Rationale for better facilitation of the DCUSA Objectives identified above

PART C – MANDATORY FOR CHARGING METHODOLOGIES PROPOSALS

DCUSA CDCM Objectives

Please tick the relevant boxes.

CDCM Objectives:

☒ 1 that compliance by each DNO Party with the Charging Methodologies facilitates the discharge by the DNO Party of the obligations imposed on it under the Act and by its Distribution Licence

☒2 that compliance by each DNO Party with the Charging Methodologies facilitates competition in the generation and supply of electricity and will not restrict, distort, or prevent competition in the transmission or distribution of electricity or in participation in the operation of an Interconnector (as defined in the Distribution Licences)

☒ 3 that compliance by each DNO Party with the Charging Methodologies results in charges which, so far as is reasonably practicable after taking account of implementation costs, reflect the costs incurred, or reasonably expected to be incurred, by the DNO Party in its Distribution Business

☐ 4 that, so far as is consistent with Clauses 3.2.1 to 3.2.3, the Charging Methodologies, so far as is reasonably practicable, properly take account of developments in each DNO Party's Distribution Business

General Objectives:

☒ 1 The development, maintenance and operation by the DNO Parties and IDNO Parties of efficient, co-ordinated, and economical Distribution Networks

☒ 2 The facilitation of effective competition in the generation and supply of electricity and (so far as is consistent therewith) the promotion of such competition in the sale, distribution and purchase of electricity

☒ 3 The efficient discharge by the DNO Parties and IDNO Parties of obligations imposed upon them in their Distribution Licences

☐ 4 The promotion of efficiency in the implementation and administration of this Agreement

Rationale for better facilitation of the DCUSA Objectives identified above

CDCM Objectives:

This change proposal addresses defects in the Price Control Disaggregation Model used to calculate discount factors that are applied by DNOs (operating in their distribution services area) to their all the way tariffs to determine to LDNOs who connect to their distribution system at different voltage levels but where the end customers are connected at LV or HV.

The DUoS margin available to a licensed distributor connecting to another distributor operating within its distribution services area is the difference between the upstream distributor's all the way DUoS charges to the end customer and the upstream distributor's DUoS charge to the downstream distributor. If the charge to the downstream distributor is not reflective of the total costs then a margin squeeze may result which could have the effect of restricting, distorting or preventing competition.

As such the change proposal satisfies CDCM objectives 2 and 3 since the current Price Control Disaggregation Model distorts cost reflectivity by including costs that relate to EHV customers in

calculating discount factors to LDNOs. This has the effect of skewing the allocation of costs to higher voltage tiers and in effect double counts the consideration of these costs once in the EDCM and again in method M General Objectives: see above
Has this issue been discussed at any other industry forums? If so please specify and provide supporting documentation

PART D – GUIDANCE NOTES FOR COMPLETING THE FORM

Data Field	Guidance
Attachments	Append any proposed legal text or supporting documentation in order to better support / explain the CP.
Change Proposal Intent	Outline the issue the CP is seeking to address. Please note that the intent of the CP cannot be altered once submitted.
Confidentiality	Clearly indicate if any parts of this Change Proposal Form are to remain confidential to DCUSA Panel (and any subsequent DCUSA Working Group) and Ofgem
CP Status	A CP may be deemed 'urgent' in accordance with Clause 10.4.8 of the DCUSA. The proposer should give supporting reasons.
DCUSA General Objectives	Indicate which of the DCUSA Objectives will be better facilitated by the Change Proposal.
DCUSA CDCM Objectives	Indicate which of the DCUSA CDCM Objectives will be better facilitated by the Change Proposal. Please note that a CDCM change may also facilitate the DCUSA General objectives.
Draft Legal Text	Insert proposed legal drafting (change marked against any existing DCUSA drafting). The Change Proposal Intent will take precedence in the event of any inconsistency.
Environmental Impact	Indicate whether it is likely that there would be a material impact on greenhouse gas emissions as a result of the proposed variation being made. Please see Ofgem Guidance.
Part 1 / Part 2 Matter	A CP must be categorised as a Part 1 or Part 2 matter in accordance with Clause 10.4.7 of the DCUSA. All Part 1 matters require Authority Consent.
Proposed Implementation Date	The Change can be implemented in February, June, and November of each year.
Proposed Solution	Outline the proposed solution for addressing the stated intent of

	the CP. The Change Proposal Intent will take precedence in the event of any inconsistency. A DCUSA Working Group may develop alternative solutions.
Rationale for DCUSA Objectives	Provide supporting reasons and information (including any initial analysis that supports your views) to demonstrate why the CP will better facilitate each of the DCUSA Objectives identified.
Related Change Proposals	Indicate if the CP is related to or impacts any CP already in the DCUSA or other industry change process.