





DCUSA DCP 266 Consultation		At what stage is this document in the process?
<h1>DCP 266</h1> <h2>The calculation and application of IDNO discounts</h2> <p>Date Raised: 9 March 2016</p> <p>CP Status: Standard Change</p>		01 – Change Proposal
		02 – Consultation
		03 – Change Report
		04 – Change Declaration
<p>Purpose of Change Proposal:</p> <p>DCP 266 Seeks to change the way in which Distribution Network Operator (DNO) tariffs to Licensed Distribution Network Operators (LDNOs) are calculated in the Common Distribution Charging Methodology (CDCM). Instead of calculating an LDNO percentage discount by comparing the avoided total cost (p/kWh) with the total cost (p/kWh) in the CDCM Price Control Disaggregation Model (PCDM), the intent of this change proposal is that the avoided total cost (p/kWh) calculated in the PCDM is compared with the average p/kWh figure for each All The Way (ATW) CDCM tariff in order to determine the LDNO % discount factor to be applied to each of the tariff components of the CDCM ATW tariff.</p> <p>This consultation is seeking views including from Parties regarding the proposal, including a modification to the intent of the change to include the Extra High Voltage Distribution Charging Methodology (EDCM).</p>		
	<p>The Workgroup recommends that this Change Proposal (CP) should:</p> <ul style="list-style-type: none"> • Proceed to consultation <p>Parties are invited to consider the questions set in section 9 and submit comments using the form attached as Attachment 1 to dcusa@electralink.co.uk by 08 March 2018.</p> <p>The Working Group will consider the consultation responses and determine the appropriate next steps for the progression of the CP.</p>	
	 <p>Impacted Parties: DNOs, IDNOs, Suppliers</p>	
	 <p>Impacted Clauses: Schedule 16, Clause 52. Schedule x, various Clauses¹</p>	

¹ To be inserted by DCP 234 on 01 April 2018

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Timetable		
The timetable for the progression of the CP is as follows:		
Change Proposal timetable:		
Activity	Date	
Initial Assessment Report Approved by Panel	09 March 2016	
Consultation issued to Parties	01 February 2018	
Change Report issued to Panel	09 May 2018	
Change Report issued for Voting	18 May 2018	
Party Voting Ends	11 June 2018	
Change Declaration issued to Authority	13 June 2018	
Authority Decision	18 July 2018	
Implementation	01 April 2020	

1. Summary

What?

- 1.1 The Distribution Connection and Use of System Agreement (DCUSA) is a multi-party contract between electricity distributors, electricity suppliers and large generators. Parties to the DCUSA can raise Change Proposals (CPs) to amend the Agreement with the consent of other Parties and (where applicable) the Authority.
- 1.2 DCP 266 was raised by British Gas and seeks to change the way in which Distribution Network Operator (DNO) tariffs to Licensed Distribution Network Operators² (LDNOs) are calculated in the Common Distribution Charging Methodology (CDCM). The Price Control Disaggregation Model (PCDM) calculates, on a p/kWh basis, the avoided costs of LDNOs serving end customers when connecting to the host DNO at a particular voltage level. The PCDM then converts these to a percentage of total costs (as determined in the PCDM) and this percentage is applied to CDCM all-the-way (ATW) tariffs as a discount.
- 1.3 The intent of this CP is to change the way the discount factor is calculated by comparing the total avoided cost (p/kWh) calculated in the PCDM with the average p/kWh figure for each ATW CDCM tariff in order to determine the LDNO percentage discount factor to be applied to each of the tariff components of the CDCM ATW tariff.

Why?

- 1.4 It is the view of the proposer that such an approach would ensure that the absolute p/kWh discount received by LDNOs remains aligned with the absolute p/kWh total cost avoided calculated in the PCDM and is not distorted by the incremental cost allocation approach applied in the CDCM.
- 1.5 Assuming the PCDM accurately calculates the avoided p/kWh by the DNO as a result of the LDNO providing the last mile of network, the LDNO margin available should be equivalent to that absolute p/kWh.

How?

- 1.6 This CP introduces the Method GM Model which will replace the PCDM, Method GM is a new concept, combining the PCDM and a 'Method G' model which was introduced to resolve the circularities that would be introduced into the CDCM by DCP 266.
- 1.7 In order to ensure that the total avoided cost (p/kWh) and the ATW CDCM costs are on an equivalent basis, it will be necessary to calculate the avoided total cost (p/kWh) in the new 'Method GM' model using the allowed revenue and forecast total kWh included within the CDCM for the relevant charging year.

Please note: this CP will have a significant impact on the LDNO community

² In this context LDNOs are Independent Distribution Network Operators and DNOs operating out of their distribution services area.

2 Governance

Justification for Part 1 Or Part 2 Matter

- 2.1 DCP 266 is classified as a Part 1 matter as it is likely to have a significant impact on competition in the distribution of electricity – see DCUSA clause 9.4.2 (B).

Requested Next Steps

- 2.2 Following a review of the Consultation responses, the Working Group will determine the next steps for DCP 266.

3 Why Change?

- 3.1 The CDCM model is an incremental cost model by design. It is intended to provide forward looking cost reflective incremental cost signals to users of the network. LDNO percentage discounts are calculated in the PCDM and input to the CDCM model to calculate the discounted CDCM tariffs to be applied to LDNOs. The PCDM is a total cost model by design. It is intended to calculate the total avoided cost for the host DNO associated with the provision of the final section of network by LDNOs.

- 3.2 The fact that the CDCM model is an incremental cost model and the PCDM is a total cost model is intentional. Ofgem stated in its October 2009 consultation³ document on the CDCM that:

“2.70 Regarding the high level approach to IDNO charging, the two separate allocation methods are consistent with the view held by Ofgem that end user charges should, as far as is possible, provide end users with incremental cost signals, whilst for IDNO charging the charges should be based on a reasonable allocation of total costs to the elements of the DNOs business that are being undertaken by the IDNO.”

- 3.3 The proposer considers that the allocation methods of both models seem appropriate given their respective intentions, but that the way in which the LDNO discounts are calculated in the PCDM and applied within the CDCM could be improved to better reconcile the two approaches.
- 3.4 It is the view of the proposer that it would be more appropriate to use the p/kWh avoided cost from the PCDM and then convert this absolute p/kWh to a percentage discount based on the ATW CDCM tariffs. Such an approach would ensure that the absolute p/kWh discount received by LDNOs remains aligned with the absolute p/kWh total cost avoided by the host DNO calculated in the PCDM, and is not distorted by the incremental cost allocation approach applied in the CDCM.

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http://webarchive.nationalarchives.gov.uk/20130402174434/http://ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgs/Documents1/Ofgem_CDCM_consultation%20280909_1.pdf

- 3.5 The advantages of the proposed approach would be that the absolute level (p/kWh) of avoided cost discount received by LDNOs would not be affected by the CDCM for ATW tariffs or by changes to it. For example, currently a 1% change in a particular ATW CDCM tariff resulting from a methodology change would result in a 1% change in the absolute discount, or margin, received by the LDNO. Under the proposed approach any change in the CDCM for ATW tariffs would have little, if any, impact on the absolute p/kWh discount received by the LDNO – instead the proposed approach would recalculate the percentage discount to ensure the absolute p/kWh discount received remained aligned with the avoided p/kWh total cost calculated in PCDM.
- 3.6 It is noted that some DNOs may not update all inputs to the PCDM annually. This may be acceptable under the current approach to LDNO discounts, but under the proposed approach every DNO would, at a minimum, need to update its allowed revenues in the PCDM to reflect the current charging year, and it would also be appropriate to update the unit (MWh) data in the PCDM to reflect the current charging year.

DCP 266 scope:

- 3.7 The proposer clarified that the intent and scope of DCP 266 is limited to the correction of the perceived defect identified above i.e. to change the way in which DNO tariffs to LDNOs are calculated in the CDCM. Instead of calculating an LDNO percentage discount by comparing the avoided total cost (p/kWh) with the total cost (p/kWh) in the PCDM, the intent is that the avoided total cost (p/kWh) calculated in the PCDM is compared with the average p/kWh figure for each ATW CDCM tariff to determine the LDNO percentage discount factor to be applied to each of the tariff components of the CDCM ATW tariff.
- 3.8 The proposer believes that by doing this the resultant LDNO tariffs will better reflect “*a reasonable allocation of total costs to the elements of the DNOs business that are being undertaken by the IDNO*” as demonstrated by the illustrative examples that are provided in paragraphs 4.14 to 4.20 below.

Out of scope of DCP 266:

- 3.9 The PCDM uses a range of historic data in order to determine the percentages which allocate price control revenues to network levels. At a high level, the approach is as follows:
- Using Distribution Price Control Review 4 (DPCR4) price control data, allowed revenue for 2005/06 – 2009/10 is split between (1) operating expenditure (for 2007/08), (2) depreciation and (3) return on regulatory asset value
 - Each of these components of revenue is allocated across network levels using a number of cost drivers determined using data sources ranging from 2005/06 – 2014/15
 - The allocations are aggregated by network level to obtain a percentage per network level of total price control allowed revenue.

- 3.10 The use of such historical data to determine the percentages which are used to allocate price control revenues to network levels is arguably due a review. However, the proposer believes such a review is outside of the scope of DCP 266 and therefore any changes to this would need to be considered by another CP.
- 3.11 The perceived logical defect which DCP 266 seeks to correct is entirely unrelated to the PCDM method of calculating the percentages used to allocate price control revenues to network levels. The defect does not affect these calculations and manifests after the percentages have been determined. Therefore, any review of the method of calculating these percentages would need to be the subject of a separate and unrelated CP.
- 3.12 It is the proposer's view that DCP 266 assumes the method of allocating price control revenue to network levels remains as appropriate as it is currently accepted to be. However, it should be noted that once the DCP 266 methodology is in place it will provide the benefit of ensuring that any future change to the allocation of price control revenue to network levels is properly reflected in the CDCM discounts received by LDNOs. By contrast, under the current methodology, any change in the PDCM allocation of price control revenue to network levels will not be properly reflected in the CDCM discounts received by LDNOs unless the same change in allocation to network levels is also made in the CDCM incremental cost methodology.

4 DCP 266 Working Group Assessment

- 4.1 The DCUSA Panel established a Working Group to assess DCP 266. The group is comprised of distributor (including IDNO), supplier and Ofgem representatives. It is noted that all DCUSA Parties were invited to attend. Meetings were held in open session and the minutes and papers of each meeting are available on the DCUSA website - www.dcusa.co.uk
- 4.2 The Working Group noted that the intent of the CP appeared to limit the solution to the PCDM (the price control disaggregation model applicable to the CDCM model) and did not include any reference to the Extra High Voltage Distribution Charging Methodology (EDCM) Price Control Disaggregation model ('extended Method M'), which is applicable to the EDCM model. The Working Group considered that it was logical that any solution implemented as part of DCP 266 should also apply to the extended Method M. The proposer acknowledged that the omission of any reference to the extended Method M was not intentional and that applying the solution to that model was fully in line with the spirit of the original intent of the CP.
- 4.3 The Working Group unanimously agreed that the intent of the CP should be refined to include changes to the extended Method M. The Working Group therefore sought permission from the DCUSA Panel to refine the intent of the CP to include the extended Method M and the DCUSA Panel approved this request on 29th April 2016. It is noted that the proposer agreed to the modification to the intent of the CP.

- 4.4 Throughout this document the terms “Price Control Disaggregation Model”, “PDCM” and “Method M” may be used interchangeably. Also, references to these terms can also be assumed to apply equally to the “EDCM Price Control Disaggregation Model” or “Extended Method M”. However it should be noted that DCP 234 ‘Merging the PCDM and extended PCDM’ has now been approved and so from 1 April 2018 there will only be one model to consider.
- 4.5 In the CP form the proposer noted that, in order to ensure that the avoided total cost (p/kWh) and the ATW CDCM cost are on an equivalent basis, it is likely to be necessary to calculate the avoided total cost (p/kWh) using the allowed revenue and forecast total kWh included within the CDCM for the relevant charging year. The Working Group considered whether the scope of the CP should include other various cost input values to the PCDM (over and above that of updated allowed revenue). It was noted that it is not the intent of the CP to have a review of all data sources in PCDM; rather the intent is to correct how the LDNO discount is calculated and applied. It was highlighted that a wider review of network charging is taking place outside of this CP. It was agreed that widening the scope of the CP would be difficult considering the CP does not propose to update the data sources in the PCDM.

Overview of proposed change

- 4.6 The Proposer set out that at a high level, the calculation of LDNO discounts follows the following steps:
- a) Price control allowed revenue is broken down between operating expenditure, depreciation and return on regulatory asset value.
 - b) Each of these components of price control allowed revenue is then allocated to network levels using specified drivers.
 - c) Determination of a percentage allocation of total revenue per unit to network levels.
 - d) Determination of the proportion of the LV mains deemed to be used by LV-connected embedded networks.
 - e) Determination of the proportion of the HV network deemed to be provided by HV-connected embedded networks.
 - f) Calculation of the discount percentage for each combination of boundary network level and end user network level.
- 4.7 The proposer noted that DCP 266 is limited in scope to the final step (f) above. It seeks to change the perceived defect in the way the outputs of the prior steps are used to calculate the discount percentages that are applied to ATW tariffs in order to determine the LDNO tariffs.
- 4.8 The current methodology uses allowed revenue and units distributed from 2007/08 in the final step (f) above. As part of the solution, updated allowed revenue (in nominal terms) and units distributed for the charging year in which the discounts being calculated will apply in the final step above will be used, whilst not updating the other data in the PCDM which is expressed in 2007/08 prices.

- 4.9 The proposer's view was that, whilst the PCDM currently expresses all monetary values in 2007/08 prices, the inputs should not be locked into using 2007/08 data. The PCDM already uses data from a range of years for the purposes of determining an appropriate percentage allocation of total revenue per unit to network levels (i.e. step c above). Therefore, since the derivation of these percentage allocations to network levels is not limited to the use of 2007/08 data, they can be deemed to represent an appropriate split of allowed revenue to network levels which can be applied to allowed revenue, expressed in nominal terms, for any year.

The table below shows the data sources for the derivation for LDNO discounts:

Step	Data and years used	
a) Breakdown of price control allowed revenue between operating expenditure, depreciation and return on regulatory asset value.	Allowed Revenue data: 2005/06 – 2009/10	
(b) Allocation of each of these components of price control allowed revenue to network levels.	Operating Expenditure	Operating expenditure from 2007/08 if network level data available, otherwise MEAV by network level using 2009/10 volumes and DPCR5 unit costs
	Depreciation	Net Capital expenditure by network level: 2005/06 – 2014/15
	Return on Regulatory Asset Value	Net Capital expenditure by network level: 2005/06 – 2014/15
(c) Determination of a percentage allocation of total revenue per unit to network levels.	Combines the above analysis, 2005/06 – 2014/15 (note: DCP266 does not propose to change these percentage allocations)	
(d) Determination of the proportion of the LV mains deemed to be used by LV- connected embedded networks.	Performed by the Nominated Calculation Agent based on latest available data	
(e) Determination of the proportion of the HV network deemed to be provided by HV- connected embedded networks.	Performed by the Nominated Calculation Agent based on latest available data	
(f) Calculation of the discount percentage for each combination of boundary network level and end user network level.	Currently uses 2007/08 allowed revenue (note: DCP266 proposes to use allowed revenue for the upcoming charging year expressed in nominal terms)	

- 4.10 As noted above, DCP 266 is limited in scope to the final step (f) above. The intent is that the avoided total cost (p/kWh) is compared with the average p/kWh figure for each ATW CDCM tariff to determine the LDNO percentage discount factor. Consequently, under DCP 266 it is necessary to derive the avoided total cost (p/kWh) using the allowed revenue and units distributed for the relevant charging year. If this approach were not taken, DNO's would be calculating the avoided cost p/kWh in 2007/08 prices and then deriving the LDNO discount by dividing this p/kWh (in 2007/08 prices) by an average ATW tariff p/kWh expressed in, for instance, 2018/19 prices.

- 4.11 The Working Group welcomes views from Parties on whether they agree that under the proposed solution, it is necessary to use allowed revenue from the relevant charging year rather than the current approach of using the 2007/08 charging year. The Working Group would also welcome

Parties views on the appropriateness of **only** updating the allowed revenue and units distributed in the PCDM whilst leaving the other price control inputs unchanged i.e. the inputs used in steps (a) to (c) above.

QUESTION 1: Do you understand the intent of DCP 266?

QUESTION 2: Do you agree that the proposed solution requires the use of current charging year data for allowed revenues and units distributed in place of 2007/08 data?

QUESTION 3: Do you believe it is appropriate under DCP 266 to update *only* the allowed revenue and units distributed in the PCDM whilst leaving the other price control inputs unchanged i.e. the inputs used in steps (a) to (c) noted in the table below paragraph 4.9?

Proposer's views

4.12 As noted in paragraph 3.1, the CDCM and PCDM intentionally use fundamentally different charging approaches.

CDCM: Incremental cost model

- Provides forward looking cost reflective incremental cost signals to end users of the network
- Does not reflect total costs

PCDM: Total cost model

- Calculates the avoided total cost by the host DNO associated with the provision of the final section of network by LDNOs.
- Does reflect total costs

4.13 The view of the proposer is that DCP 266 seeks to address a perceived defect in the logic of the current approach to calculating and applying LDNO discounts which results in LDNO charges which do not reflect *"a reasonable allocation of total costs to the elements of the DNOs business that are being undertaken by the IDNO"*.

Simple illustration

4.14 Consider the following example for a particular end user:

Incremental cost signal (tariff) calculated in the CDCM: 1.5p/kWh

Total cost calculated in the PCDM: 2.5p/kWh

Avoided cost calculated in the PCDM: 0.5p/kWh

4.15 In this example, and referring back to the Ofgem quote in paragraph 3.2 above:

“end user charges should, as far as is possible, provide end users with incremental cost signals”

- the end user tariff should be 1.5p/kWh

“for IDNO charging the charges should be based on a reasonable allocation of total costs to the elements of the DNOs business that are being undertaken by the IDNO”

- the LDNO discount should be 0.5p/kWh (*“a reasonable allocation of total costs to the elements of the DNOs business that are being undertaken by the IDNO”*).

4.16 Therefore, the LDNO tariff should be 1p/kWh (1.5p/kWh – 0.5p/kWh). However due to the perceived defect in the current methodology this outcome does not materialise.

Current approach:

LDNO tariff = ATW tariff x (1 - LDNO discount (%))

Where: LDNO discount (%) = PCDM avoided cost (p/kWh) / **PCDM total cost (p/kWh)**

e.g. LDNO discount = 0.5p/kWh / 2.5 p/kWh = 20%

LDNO tariff = 1.5p/kWh x (1 - 20%) = 1.2p/kWh

4.17 In this simple illustration, the costs avoided by the LDNO are 0.5p/kWh, but the margin received by the LDNO is only 0.3p/kWh (1.5p/kWh – 1.2p/kWh). Obviously, different assumptions could be used to produce an outcome where the LDNO margin is higher than the calculated avoided cost – the important point is to illustrate that they will be different.

4.18 The proposer believes that the reason that the expected outcome does not materialise is because of a flawed mathematical logic being used to calculate LDNO tariffs. A discount percentage using total costs in the PCDM applied to an incremental cost tariff calculated in the CDCM will not produce LDNO tariffs which reflect *“a reasonable allocation of total costs to the elements of the DNOs business that are being undertaken by the IDNO”* unless, by pure chance, the total cost and incremental cost are identical.

4.19 DCP 266 seeks to correct this perceived defect to better reconcile the total cost approach in the PCDM with the incremental cost approach in the CDCM.

Proposed approach:

LDNO tariff = ATW tariff x (1 - LDNO discount (%))

Where LDNO discount (%) = PCDM avoided cost (p/kWh) / **ATW tariff (p/kWh)**

e.g. LDNO discount = 0.5p/kWh / 1.5 p/kWh = 33%

LDNO tariff = 1.5p/kWh x (1 - 33%) = 1p/kWh

4.20 In this simple illustration, the costs avoided by the LDNO are 0.5p/kWh and the margin received by the LDNO is also 0.5p/kWh (1.5p/kWh – 1p/kWh).

Working Group Views

4.21 Some Working Group members are not convinced that a logical defect exists. It is noted that paragraph 2.70 of the Ofgem CDCM Consultation⁴ issued in 2009 might be interpreted as supporting the existing methodology. The quote:

- was in the context of a consultation document which included full tariffs Impact Assessments of the existing methodology, which was approved by the Authority
- states the methodology should be based on a reasonable allocation of total costs. Some Working Group members suggest the percentage allocation within the existing methodology achieves this.

QUESTION 4: Do you agree with the proposer's view that there is a defect in the logic in the way that discounts are calculated and applied to determine LDNO tariffs? If so:

- **Do you believe the DCP 266 solution correctly addresses this defect? Please provide your rationale.**
- **Are there any alternative solutions for addressing the perceived defect?**

4.22 This change introduces a CDCM ATW p/kWh into the calculations in order to derive the LDNO discount. This results in a potential iteration/loop issue with the CDCM and PCDM. An initial set of modelling, designed to resolve the iteration/loop issue, was produced at the request of the Working Group. The Working Group were provided with a 4th model, labelled Method G, which was to be used in addition to the CDCM, EDCM and PCDM for the purpose of setting charges.

4.23 The Working Group agreed that adding another model to the existing suite of models was undesirable and introduced the possibility for duplication/error within population and the production of charges. The Working Group liaised with the modelling consultant to understand if there were any alternative modelling options available. The modelling consultant provided a prototype model which combined the proposed Method G with an amended PCDM, (labelled Method GM), which replicates the CDCM inputs to carry out the calculation.

4.24 The Working Group noted that the PCDM requires breakdown of revenues into revenues which relate to incentives, and other revenues (PCDM Table 1315 – Analysis of Allowed Revenue). Revenues which relate to incentives are excluded from revenue to be allocated between network levels when determining discounts. Prior to requesting the complete modelling, the Working Group requested confirmation that the modelling consultant was able to update PCDM Table 1315 (Analysis of allowed

revenue (£/year)) to be automatically calculated based on the inputs to CDCM Table 1001 (CDCM Target Revenue) if the working group confirmed which of the CDCM Target Revenue items should be classified as incentives that are to be excluded from the 'revenue to share'. The modelling consultant confirmed that they would be able to accommodate this request and to do so would need the "Net incentive revenue" for table 1315.

4.25 The Working Group reviewed the CDCM Target Revenue table (based on the 2018/19 CDCM template) and formed a view as to which input items they believed should be treated as revenue, innovation or incentives. It was agreed that anything that is clearly labelled as an "incentive/penalty" should be assigned to the 'incentives' category that is to be excluded from the 'revenue to share'.

4.26 For the purpose of this, the Working Group agreed the items with a tick in the column labelled incentive from the below table are deemed as incentives/penalties:

Description	Licence Term	Incentive
Regulatory Year		
Base Demand Revenue before inflation (A1)	PU	✗
Annual Iteration adjustment before inflation (A2)	MOD	✗
RPI True-up before inflation (A3)	TRU	✗
Price index adjustment (A4)	RPIF	✗
Base demand revenue (A): [A = (A1 + A2 + A3) * A4]	BR	
Pass-Through Licence Fees (B1)	LF	✗
Pass-Through Business Rates (B2)	RB	✗
Pass-Through Transmission Connection Point Charges (B3)	TB	✗
Pass-through Smart Meter Communication Licence Costs (B4)	SMC	✗
Pass-through Smart Meter IT Costs (B5)	SMIT	✗
Pass-through Ring Fence Costs (B6)	RF	✗
Pass-Through Others (B7)	HB, SEC, UNC	✗
Allowed Pass-Through Items (B): [B = B1 + B2 + B3 + B4 + B5 + B6 + B7]	PT	
Broad Measure of Customer Service incentive (C1)	BM	✓
Quality of Service incentive (C2)	IQ	✓
Connections Engagement incentive (C3)	ICE	✓
Time to Connect incentive (C4)	TTC	✓
Losses Discretionary Reward incentive (C5)	LDR	✓
Network Innovation Allowance (C6)	NIA	✗
Low Carbon Networks Fund (C7)	LCN1	✗
	LCN2	✗
Connection Guaranteed Standards Systems & Processes penalty (C8)	AUM, CGSRA	✓
Residual Losses and Growth incentive (C9)	PPL	✓
	GTA	✓
Incentive Revenue and Other Adjustments (C): [C = C1 + C2 + C3 + C4 + C5 + C6 + C7 + C8 + C9]		
Correction Factor (D)	-K	✗
Total allowed Revenue (E): [E = A + B + C + D]	AR	
Other 1. Excluded services - Top-up, standby, and enhanced system security (F1) (see note 1)	DRS4	✗
Other 2. Excluded services - Revenue protection services (F2) (see note 1)	DRS5	✗

Other 3. Excluded services - Miscellaneous (F3) (see note 1)	DRS9	×
Other 4. blank or if required please provide description (F4)		×
Other 5. blank or if required please provide description (F5)		×
Total other revenue recovered by Use of System Charges (F): [F = F1 + F2 + F3 + F4 + F5]		
Total Revenue for Use of System Charges (G): [G = E + F]		
1. Revenue raised outside CDCM - EDCM and Certain Interconnector Revenue (H1)		×
2. Revenue raised outside CDCM - Voluntary under-recovery (H2)		×
3. Revenue raised outside CDCM - blank or if required please provide description (H3)		×
4. Revenue raised outside CDCM - blank or if required please provide description (H4)		×
Total Revenue to be raised outside the CDCM (H): [H = H1 + H2 + H3 + H4]		
Latest forecast of CDCM Revenue (I): [I = G - H]		
CDCM Revenue Used in Charging Model		
Final Collected Revenue Forecast (J)		×
Forecast Over / (Under) Recovery [being (J - F - E + H2)]		×
Forecast overall percentage change to Allowed Revenue (K)		×
Overall % change to Use of System Charges effective 1st April of Regulatory Year to balance (L)		×

This table is contained within Schedule 15 of DCUSA and may be subject to change in the future.

- 4.27 The Working Group agreed that it would be beneficial to obtain views from industry as to their belief on what is classed as an incentive in CDCM Target Revenue via a consultation question.

QUESTION 5: Do you agree with the principle that revenue relating to incentives/penalties should not be shared?

Do you believe that the Working Group has correctly identified the items that are to be excluded from the 'revenue to share'?

- 4.28 The Working Group agreed to proceed with a request for a full set of modelling based on the outcomes from their discussions. Upon review of the completed impact assessment, the Working Group noted three issues that required further investigation.

'0 volumes'

- 4.29 One Working Group member identified inconsistencies in the tariff spreadsheet provided as part of the initial impact assessment. The inconsistency was noted across at least two DNOs between the 'LV Network Domestic' and 'LDNO LV: LV Network Domestic' tariffs. It was noted that the price does not change between the two cells and thus there is no discount being applied.
- 4.30 The Working Group discussed the inconsistencies and noted that this is due to the fact that there were no customers currently forecast to be on these tariffs for the charging year in question. It was noted that under the current methodology where there are no volumes or forecast volumes for a specific tariff then the LDNO discount percentage will still be applied when determining the LDNO

equivalent tariffs. Changing to a p/kWh figure results in no discount being calculated and the group considered if providing a fix for this issue could be in scope of DCP 266.

4.31 This issue was put to the modelling consultant, to which it was noted that the analysis of the Working Group was correct. The modelling consultant noted that the proposed DCP 266 methodology does not allow the calculation of LDNO discounts for tariffs with zero volumes and that it may be possible to change the methodology to address this. Two solutions (outlined below) were put to the Working Group for agreement on the best way forward.

- The method could explicitly allow the user to input notional volumes that are only used to calculate an average ATW p/kWh figure (and not for anything else). However, this would introduce additional complexity to the model and methodology.
- If it is believed that the issue of zero volumes (for LV Network Domestic) may go away by the time DCP 266 is implemented. A pragmatic approach for now may be to use notional data in table CDCM Table 1053 (Volume forecasts for the charging year) for tariffs with zero volumes for the impact assessment. It was noted that no model change would be required if this approach were taken.

4.32 The Working Group agreed to use a pragmatic approach by inserting notional data and providing feedback in consultation on the suggested issue falling away (on the basis that customers will migrate to these tariffs over time) by the time this change is implemented. The Working Group agreed to amend the legal text to align to the solution and noted that paragraph 52 of Schedule 16 has been amended to, 'In doing so, the DNO Party will assume a minimum of one customer will exist in the charging year for each tariff.'

QUESTION 6: Do you agree with the approach that the Working Group has used to resolve the issue of '0 volumes' out of the options noted in the bullet points under paragraph 4.31? If not, then please provide your rationale for the other option or set out any other options that you believe should be considered.

'Discounts in excess of 100 percent'

4.33 At an early stage, concerns were raised regarding a scenario of an LDNO receiving discount in excess of 100%. The group discussed whether there should be a limiting factor within the model. Convergence between the models when iterated could also raise an issue in the case of negative scaling and the impact this will have on tariffs. This Issue was highlighted by the DCUSA modelling consultant in their commentary from the first impact assessment that was carried out.

11. Under the DCP 266 approach, LDNO discount percentages can vary from year to year, and are no longer bounded between 0 and 100 per cent. In particular, the DCP 266 p/kWh margins calculated under the method M approach could be higher than the corresponding average CDCM end user tariff, leading to discount percentages greater than 100 per cent. This is particularly the case for EHV LDNOs.

- 4.34 The Working Group proposed a fix for this issue which was to cap all discounts at a maximum value of 100%. The modelling consultant was asked to confirm if the proposed solution could be produced to which it was confirmed that it could. The Working Group agreed to amend the legal text to align to the solution to cap all discounts to 100% and requested the modelling consultant

QUESTION 7: Do you agree that all discounts should be capped to a maximum of 100 percent? Please provide your rationale.

'LDNO EHV generation discounts'

- 4.35 An issue was raised in the commentary provided by the modelling consultant from the first impact assessment around disproportionate discounts for generation served by EHV LDNOs.

12. The impact of DCP 266 on LDNO discounts for generation end user tariffs served by EDCM IDNOs is particularly extreme. Under the current approach the LDNOs' margin (if they choose to mirror the DNO's tariff) are negative as discount percentages are applied to generation credits. The effect of fixing the LDNO margin in p/kWh for generation end users served by EHV LDNOs means that, in all cases, the LDNO earns a positive margin that far exceeds the credits that would be paid by the host DNO to an equivalent end user. This leads to discount percentages being negative and greater than 100 per cent (i.e. DNO pays the LDNO a credit that is much larger than the credit that it would have paid the end user).

- 4.36 The Working Groups response to this issue was to confirm that they are not looking to change the principle being applied for LDNO discounts with respect to generation end user tariffs i.e. where the current methodology (whether CDCM or EDCM) reduces the credit by the discount percentage for LDNO generation end users, under DCP 266 the credit should be reduced by a p/kWh – calculated in a manner consistent with the way in which the percentage discount is calculated. It was noted that the intent of DCP 266 was clear in seeking to move from applying the credits as a percentage to applying them as a p/kWh, not to reverse the way they were also applied to generation.
- 4.37 The modelling consultant was asked to confirm if the proposed solution could be produced to which it was noted that it is possible to apply the calculated discounts in p/kWh as negative discounts, so that any CDCM generation credits would be reduced by the discount percentages. The Working Group agreed amend the legal text to align to the solution and noted that paragraph 46 of Schedule XX (to be introduced by DCP 234 on 1 April 2018) has been amended to incorporate the proposed solution.

QUESTION 8: Do you agree with the approach used by the Working Group to address 'LDNO EHV generation discounts' which is to apply the calculated discounts in p/kWh as negative discounts, so that any CDCM generation credits would be reduced by the discount percentages? Please provide any rationale with your response.

Other Considerations

- 4.38 The Working Group noted that the sentence from paragraph 46A of the legal text (shown below) may be impacted should DCP 268 'DUoS Charging Using HH settlement data' be approved due to tariff name changes being introduced by DCP 268.

“For this purposed the Domestic Two Rate and Domestic Restricted tariffs will be aggregated and the Small Non-Domestic Two Rate and Small Non-Domestic Restricted tariffs will be aggregated.”

- 4.39 Following on from the Working Groups decisions on the areas noted above (paragraphs 4.29 to 4.37) the Working Group requested amended modelling be completed to incorporate the changes. The Working Group also requested a refreshed impact assessment as a result, the detail of which is in Section 6 below. The table below is designed to highlight what impacts DCP 266 has on the models and the use of the models compared to the current models.

Models	Summary of Change
CDCM	No change apart from the input data derived from the GM model
EDCM	No change apart from the input data derived from the GM model
PCDM	Method M is now Method GM. This model incorporates a copy of the CDCM (excluding table 1038) within it. Input data needs to be populated in this model as well as the CDCM.

5 Relevant Objectives

Assessment against the DCUSA Charging Objectives

- 5.1 For a DCUSA CP to be approved it must be demonstrated that it better meets the DCUSA Objectives. The table below details the DCUSA Charging Objectives.

DCUSA Charging 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

- | | |
|---|---|
| 5 | that compliance by each DNO Party with the Charging Methodologies facilitates compliance with the Regulation on Cross-Border Exchange in Electricity and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators. |
| 6 | that compliance with the Charging Methodologies promotes efficiency in its own implementation and administration. |

- 5.2 The proposer believes that DCUSA General Objective 2 and Charging Objective 2 will be better facilitated by reducing or removing the current distortion in the absolute level of total avoided cost discount received by LDNOs by ensuring that the absolute total cost discount calculated in the PCDM is not affected by the CDCM for ATW tariffs or changes to it. The proposer believes that there is currently a logical defect in the approach to calculating and applying LDNO discounts which results in LDNO charges which do not reflect *“a reasonable allocation of total costs to the elements of the DNOs business that are being undertaken by the IDNO”*. DCP 266 removes this defect and by ensuring that the p/kWh discounts received by LDNOs remains aligned with the absolute level of avoided costs calculated in the PCDM, this change will promote competition in the distribution of electricity. The proposer believes the absolute level of discount (p/kWh) received by LDNOs is also likely to be more stable and predictable since it will be protected from the impact of any changes to the methodology for ATW CDCM tariffs, which will also promote competition in the distribution of electricity.
- 5.3 The Working Group wish to highlight that when this change was proposed, both the General and Charging Objectives were to be considered when assessing whether the change would better facilitate the Objectives. Since the implementation of DCP 275 ‘Code Governance Review 3 & SLC 22’ which introduced a final Charging Objective that aligned both sets of Objectives, any CP which changes the charging methodologies needs only be assessed against the Charging Objectives. Therefore, only the DCUSA Charging Objectives should be considered when assessing the impact of DCP 266.

QUESTION 9: Do you consider that the proposal better facilitates the DCUSA Charging Objectives?

- **If so, please detail which Charging Objectives are better facilitated by DCP 266 and provide your rationale.**
- **If not, please detail which Charging Objectives are not better facilitated by DCP 266 and provide your rationale.**

6 Impacts & other considerations

Does this Change Proposal impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

- 6.1 The Working Group does not consider at this stage, there to be any cross-code impact.
- 6.2 The Working Group discussed whether it would be better if the intent of this change is reviewed as part of Ofgem's SCR associated with the Targeted Charging Review (TCR) or the Charging Futures Forum (CFF) Task Forces.
- 6.3 The Working Group view is that there is no impact on the TCR and that, at this stage, it is too early to say whether or how this change will be affected by CFF Task Forces.

QUESTION 10: Do you anticipate any associated impacts on the TCR or the CFF Task Forces by continuing to progress DCP 266? If so, what is the impact?

Consumer Impacts

- 6.4 The Working Group considered that this change would benefit from Parties being able to understand its impact in a modified CDCM/EDCM/PCDM model with impact estimates. The DCP 266 modelling documentation acts as Attachment 4. The CDCM model, EDCM model and PCDM have been modified to incorporate the proposed solution.
- 6.5 DNO Working Group members have successfully populated the DCP 266 models and replicated the expected resulting outputs.

Impact Assessment

- 6.6 The impact assessment documentation acts as Attachment 5 to this consultation. The analysis compared LDNO discount percentages before and after DCP 266, and also looked at the impact of changing LDNO discounts on end user tariffs.
- 6.7 The full results of the analysis are set out in the following set of documents:
 - (a) The file labelled Appendix 1 sets out the impact of DCP 266 on LDNO discount percentages for all combinations of boundary and end user tariffs. This includes both CDCM and EDCM discounts.
 - (b) The file labelled Appendix 2 sets out the impact on LDNO discount percentages in a map form, showing differences in the impact between DNO areas.
 - (c) The folder labelled Appendix 3 contains three spreadsheets setting out the impact of DCP 266 on CDCM tariffs. This covers the impact on tariff components (unit rates, fixed charges, capacity charges etc), the impact on aggregate revenue by tariff and the impact on average revenue per tariff expressed in p/kWh.

- 6.8 Under the DCP 266 approach, the p/kWh margins calculated could be higher than the corresponding average CDCM end user tariff, which in turn could lead to discount percentages greater than 100 per cent. In such cases, the discount percentages are capped at 100 per cent.
- 6.9 The DCP 266 approach does not allow the calculation of discount percentages in cases where forecast volumes for the corresponding ATW tariff are zero. In such cases, the model defaults to a discount percentage of 100 per cent. The legal text mandates that a value will need to be populated in order to determine the discount.
- 6.10 The following table summarises the impact of DCP 266 on core all-the-way tariffs. The complete dataset by licensee and including all tariffs can be found at attachment 6.

% Change in Average p/kWh for all-the-way tariffs	GB Min	GB Average	GB Max
Domestic Unrestricted	(0.12%)	(0.02%)	0.05%
Small Non Domestic Unrestricted	(0.08%)	(0.02%)	0.05%
LV HH Metered	(0.09%)	(0.01%)	0.05%
HV HH Metered	(0.09%)	(0.02%)	0.06%
LV UMS (Pseudo HH Metered)	(0.10%)	(0.02%)	0.06%

- 6.11 The following tables show the impact of DCP 266 on the LDNO margin expressed as a percentage of the host DNO ATW charge in respect of the above five tariffs for DNO/LDNO boundary at LV and HV respectively. The complete dataset by licensee and including all tariffs can be found at attachment 6.

Change to LDNO margin as a percentage of host DNO all-the-way charge at LV Boundary	GB Min	GB Average	GB Max
Domestic Unrestricted	(8.4%)	(4.7%)	(1.3%)
Small Non Domestic Unrestricted	(6.9%)	2.2%	9.6%
LV HH Metered	(5.1%)	0.8%	5.1%
LV UMS (Pseudo HH Metered)	(13.0%)	(2.3%)	11.9%

Change to LDNO margin as a percentage of host DNO all-the-way charge at HV Boundary	GB Min	GB Average	GB Max
Domestic Unrestricted	(11.5%)	(7.4%)	(1.6%)
Small Non Domestic Unrestricted	(8.9%)	4.3%	17.4%
LV HH Metered	(6.0%)	1.9%	9.3%
HV HH Metered	(0.2%)	6.9%	11.8%
LV UMS (Pseudo HH Metered)	(20.4%)	(3.3%)	20.0%

6.12 The following tables set out a summary of the impact that DCP 266 has on Domestic Unrestricted tariffs at different boundary levels.

The table below provides a summary of 2018/19 charges before and after the application of DCP 266, alongside the impact of DCP 266 expressed in £ and as a %. Charges are calculated on the Domestic Unrestricted tariff using an annual consumption figure of 3300kw/h.

	2018/19 charges excluding DCP 266			2018/19 charges including DCP 266			Net impact of DCP 266					
	DNO ATW (£/annum)	IDNO Margin		DNO ATW (£/annum)	IDNO Margin		ATW charge		IDNO LV:LV		IDNO HV:LV	
		LV:LV	HV:LV		LV:LV	HV:LV	£/annum	% change	£/annum	% change	£/annum	% change
ENWL	£84.55	£30.20	£48.63	£84.52	£25.89	£42.14	£-0.03	-0.04%	£-4.31	-14.28%	£-6.49	-13.34%
NPG Northeast	£92.01	£36.61	£58.64	£91.94	£30.95	£49.68	£-0.07	-0.08%	£-5.66	-15.46%	£-8.96	-15.28%
NPG Yorkshire	£78.18	£30.66	£48.77	£78.18	£27.69	£44.64	£0.00	0.00%	£-2.97	-9.69%	£-4.12	-8.45%
SSEN SEPD	£79.88	£27.24	£46.09	£79.91	£25.37	£43.38	£0.04	0.05%	£-1.87	-6.86%	£-2.70	-5.87%
SSEN SHEPD	£132.34	£38.02	£79.15	£132.30	£32.53	£68.53	£-0.03	-0.02%	£-5.49	-14.45%	£-10.62	-13.42%
UKPN EPN	£81.58	£25.15	£40.32	£81.48	£19.13	£30.94	£-0.10	-0.13%	£-6.02	-23.93%	£-9.38	-23.27%
UKPN LPN	£69.60	£18.74	£32.32	£69.63	£15.91	£27.74	£0.03	0.05%	£-2.83	-15.11%	£-4.59	-14.19%
UKPN SPN	£88.05	£27.54	£45.80	£88.01	£21.86	£36.50	£-0.04	-0.04%	£-5.68	-20.61%	£-9.30	-20.31%
WPD East Midlands	£76.37	£23.01	£36.74	£76.37	£22.01	£35.51	£0.00	0.00%	£-1.00	-4.36%	£-1.24	-3.37%
WPD South Wales	£106.75	£34.87	£67.99	£106.75	£29.34	£57.88	£0.00	0.00%	£-5.53	-15.85%	£-10.12	-14.88%
WPD South West	£107.84	£40.21	£66.72	£107.84	£35.64	£60.01	£0.00	0.00%	£-4.57	-11.35%	£-6.71	-10.06%
WPD West Midlands	£86.18	£28.71	£44.22	£86.22	£27.43	£42.47	£0.03	0.04%	£-1.27	-4.44%	£-1.75	-3.95%
SPEN SPM	£107.03	£40.27	£64.15	£106.96	£31.19	£51.89	£-0.07	-0.06%	£-9.08	-22.56%	£-12.25	-19.10%
SPEN SPD	£98.05	£37.94	£64.05	£98.02	£31.99	£54.07	£-0.03	-0.03%	£-5.95	-15.67%	£-9.98	-15.58%

6.13 Whilst each LDNO will have a different portfolio of customers with different use of system tariffs applied, a significant proportion of LDNO customers will be subject to the unrestricted tariff. Therefore, the above analysis of the impact that the DCP will have on unrestricted tariffs is highly likely to be illustrative of the impact on LDNOs.

Environmental Impacts

- 6.14 In accordance with DCUSA Clause 11.14.6, the Working Group assessed whether there would be a material impact on greenhouse gas emissions if DCP 266 were implemented. The Working Group did not identify any material impact on greenhouse gas emissions from the implementation of this CP.

Engagement with the Authority

- 6.15 Ofgem has been fully engaged throughout the development of DCP 266 as an Observing member of the Working Group.

7 Implementation

- 7.1 The proposed implementation date for DCP 266 is 1 April 2020.

QUESTION 11: If DCP 266 were to be approved are you supportive of the proposed implementation date of 01 April 2020?

8 Legal Text

- 8.1 The proposed DCP 266 Legal Text has been provided as Attachment 2.
- 8.2 The legal text seeks to change the calculation of an LDNO percentage discount so that the avoided total cost (p/kWh) calculated in the PCDM is compared with the average p/kWh figure for each ATW CDCM tariff in order to determine the LDNO percentage discount factor to be applied to each of the tariff components of the CDCM ATW tariff. The legal text also addresses the issues set out in paragraphs 4.29 to 4.37.

QUESTION 12: Do you have any comments on the proposed legal text?

9 Consultation Questions

- 9.1 The Working Group is seeking industry views on the following consultation questions:

Question Number	Questions
1	Do you understand the intent of DCP 266?
2	Do you agree that the proposed solution requires the use of current charging year data for allowed revenues and units distributed in place of 2007/08 data?
3	Do you believe it is appropriate under DCP 266 to update only the allowed revenue and units distributed in the PCDM whilst leaving the other price control inputs unchanged i.e.

	the inputs used in steps (a) to (c) noted in the table below paragraph 4.9?
4	<p>Do you agree with the proposer's view that there is a defect in the logic in the way that discounts are calculated and applied to determine LDNO tariffs? If so:</p> <ul style="list-style-type: none"> Do you believe the DCP 266 solution correctly addresses this defect? Please provide your rationale Are there any alternative solutions for addressing the perceived defect?
5	<p>Do you agree with the principle that revenue relating to incentives/penalties should not be shared?</p> <p>Do you believe that the Working Group has correctly identified the items that are to be excluded from the 'revenue to share'?</p>
6	<p>Do you agree with the approach that the Working Group has used to resolve the issue of '0 volumes' out of the options noted in the bullet points under paragraph 4.31? If not, then please provide your rationale for the other option or set out any other options that you believe should be considered.</p>
7	<p>Do you agree that all discounts should be capped to a maximum of 100 percent? Please provide your rationale.</p>
8	<p>Do you agree with the approach used by the Working Group to address 'LDNO EHV generation discounts' which is to apply the calculated discounts in p/kWh as negative discounts, so that any CDCM generation credits would be reduced by the discount percentages? Please provide any rationale with your response.</p>
9	<p>Do you consider that the proposal better facilitates the DCUSA Charging Objectives?</p> <ul style="list-style-type: none"> If so, please detail which Charging Objectives are better facilitated by DCP 266 and provide your rationale. If not, please detail which Charging Objectives are not better facilitated by DCP 266 and provide your rationale.
10	<p>Do you anticipate any associated impacts on the TCR or the CFF Task Forces by continuing to progress DCP 266? If so, what is the impact?</p>
11	<p>If DCP 266 were to be approved are you supportive of the proposed implementation date of 01 April 2020?</p>
12	<p>Do you have any comments on the proposed legal text?</p>
13	<p>Are there any alternative solutions or unintended consequences that should be considered by the Working Group?</p>
14	<p>Do you have any other comments on DCP 266?</p>

- 9.2 Responses should be submitted using Attachment 1 to dcusa@electralink.co.uk no later than **08 March 2018**.
- 9.3 Responses, or any part thereof, can be provided in confidence. Parties are asked to clearly indicate any parts of a response that are to be treated confidentially.

Next Steps

- 9.4 Responses to the Consultation will be reviewed by the DCP 266 Working Group. The Working Group will then determine the progression route for the CP.
- 9.5 If you have any questions about this paper or the DCUSA Change Process, please contact the DCUSA helpdesk by email to dcusa@electralink.co.uk or telephone 020 7432 3011.

Attachments

- Attachment 1 – DCP 266 Response Form
- Attachment 2 – DCP 266 Proposed Legal Text
- Attachment 3 – DCP 266 Change Proposal Form
- Attachment 4 – Modelling Documentation
- Attachment 5 – Impact Assessment
- Attachment 6 – Data Set for Tables