



DCUSA CONSULTATION

DCP 227 – Removing the Inconsistency in the Application of Peaking Probabilities in the CDCM

1 Purpose

- 1.1 The Distribution Connection and Use of System Agreement (DCUSA) is a multi-party contract between electricity Distributors and 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 This document is a Consultation issued to Distributors, Suppliers, Citizens Advice and other interested Parties and the Authority in accordance with Clause 11.14 of the DCUSA seeking industry views on DCP 227 'Removing the inconsistency in the application of Peaking Probabilities in the CDCM'. Respondents are invited to consider the questions set out below and submit comments using the form provided in Attachment 1. Responses should be emailed to DCUSA@electralink.co.uk by **22 July 2015**.

2 Background of DCP 227

- 2.1 The CDCM currently applies a different set of rules, compared to other tariffs, to both the domestic unrestricted tariff and the small non-domestic unrestricted tariff when allocating the costs of each network level on the basis of contribution to system simultaneous maximum load. For these two tariffs (and the related portfolio tariffs) the network cost allocation rule uses the ratio of the tariff group coincidence factor to load factor. The peaking probabilities at the various network levels have no impact on the allocation of costs for these two tariffs – in effect the CDCM assumes that all network level assets peak at the time of system peak. The peaking probabilities input into the CDCM indicate that this is not the case.
- 2.2 For tariffs with multiple unit rates, however, the CDCM applies a revised rule to allocate the costs of each network level on the basis on contribution to system maximum load. The ratio of the coincidence factor to the load factor is replaced with a coefficient calculated by the following procedure to reflect the peaking probabilities of each network level (see paragraph 72 of Schedule 16):
- a) Calculate the ratio of coincidence factor to load factor that would apply if units were uniformly spread within each time band, based on the estimated proportion

of units recorded in each relevant time pattern regime that fall within each distribution time band and the assumption that the time of system simultaneous maximum load is certain to be in the red or black (as appropriate) distribution time band.

- b) Calculate a correction factor for each user type as the ratio of the coincidence factor to load factor, divided by the result of the calculation above.
- c) For each network level and each unit rate, replace the ratio of the coincidence factor to the load factor in the above formula with the ratio of coincidence factor (to network level asset peak) to load factor that would apply given peaking probabilities at that network level if units were uniformly spread within each time band, multiplied by the correction factor.
- d) The coefficient calculated for the non-half hourly and half hourly unmetered supplies tariffs will be determined by aggregating these tariffs to produce one value.

2.3 The effect is to create an inconsistency in the CDCM whereby the same £/kW/yr network level cost is allocated to some tariffs on the assumption that all assets at all levels peak at the time of system peak, but allocated to other tariffs in a way which reflects the peaking probabilities of each network level.

2.4 DCP 227 has been raised by British Gas and seeks to remove this inconsistency by ensuring costs are allocated in a way which utilises peaking probabilities for all demand tariffs. Additional information is contained within the CP form provided as Attachment 2.

3 Working Group Assessment of DCP 227

3.1 The DCUSA Panel established a Working Group to assess DCP 227. This Working Group consists of DNO, Supplier and Ofgem representatives.

3.2 The group discussed DCP 227 and agreed that there is a discrepancy in the tariff calculation approach. Working Group members felt that the solution proposed under DCP 227 was a logical approach to addressing this discrepancy.

- 3.3 The Working Group considered why a different approach between tariffs was taken when the CDCM was first developed. The proposer of DCP 227 explained that his understanding is that when the CDCM was developed, the opinion was that the co-incidence factor was key and that costs should be allocated using the co-incidence factor. The initial view was that all tariffs would be calculated using the co-incidence factor, however, in practice it was found that this does not work for allocating costs to multiple unit rates. For instance, for two rate tariffs the peak demand occurs during the day, therefore, if you followed a co-incidence factor approach then no costs would be allocated to the night time rate as that rate would not contribute to the system maximum demand. The view of the Networks when developing the CDCM was that some costs are driven by timebands away from the peak consumption times. This is why peaking probabilities were brought in, so that costs could be allocated to multi-rate tariffs. The Ofgem decision document on the common methodology for the calculation of electricity distribution use of system charges is provided as Attachment 3. Paragraph 1.35 (on page 57) of the Ofgem decision document refers to the use of co-incidence factors.

4 Updated CDCM Model

- 4.1 The Working Group updated the CDCM model to reflect the proposed solution. The updated model is provided as Attachment 4, along with a description of the changes made.
- 4.2 When applying the DCP 227 solution to the CDCM, the Working Group used a baseline model which incorporated both of the following approved DCUSA CPs that have not yet been implemented:
- DCP 179 'Amending the CDCM tariff structure' – this CP was implemented on 1 April 2015
 - DCP 161 'Excess Capacity Charges' - this CP has been approved for implementation on 1 April 2016
- 4.3 The reason for this is that the earliest that DCP 227 could be implemented is 1 April 2016, by which time both DCP 179 and DCP 161 will have been implemented.

5 Impact Assessment

Impact on the CDCM

5.1 The Working Group noted that the CDCM tariffs for the 2015/16 charging year do not incorporate DCP 161. It would therefore not be appropriate to compare the results of the DCP 227 updated CDCM model with the tariffs for the 2015/16 charging year. The Working Group instead prepared the impact assessment on a 2016/17 tariff basis¹. The spreadsheet provided as attachment 5 includes the following tariffs:

- Baseline 2016/17 tariffs (calculated using a CDCM model that includes DCP 179 and DCP 161)
- DCP 228 2016/17 tariffs (calculated using a CDCM model that includes DCP 179, DCP 161 and the proposed DCP 227 solution)

5.2 It is noted that within the impact assessment data (Attachment 5) the impact on tariffs is reasonably consistent across all DNO Areas with some exceptions²; with the Domestic Unrestricted tariff decreasing and the LV Network Non-Domestic Non-CT tariff increasing. All other tariffs vary slightly due to the impact of scaling. An executive summary providing an overview of the impact of DCP 227 on unrestricted CDCM tariffs is provided within Attachment 5. A full in-depth analysis is available on request.

Comment [RT1]: Add a qualification to this paragraph (i.e. cannot assume that the tariffs behave like this everywhere).
ACTION GM

Impact on the EDCM

5.3 Some EHV Distribution Charging Methodology (EDCM) inputs are derived from the CDCM. The Working Group, therefore, calculated the impact of DCP 227 on the EDCM by utilising the DCP 227 updated CDCM model outputs in the EDCM. The approach used to carry out this impact assessment is described in Attachment 6 and the impact assessment results are provided in Attachment 7.

Comment [RT2]: SP data to be updated in RFI spreadsheet

¹ As a consequence of carrying out the impact assessment using 2016/17 tariffs, the Working Group needed to calculate a forecast of excess capacity charges for the 2016/17 period. Whilst it is not relevant for the progression of DCP 227, industry parties may find these forecasts helpful. The forecast values have been based on the impact assessment for DCP 161 which was undertaken in 2014.

²

5.4 This impact assessment shows that ~~the~~ the impact on charges ranges from a 0.3% to 5% increase. However, please note that in calculating these illustrative tariffs there has been no update to the load flow modelling and customer specific inputs, which can have a significant impact on tariffs. Actual April 2016 tariffs will therefore differ from the illustrative tariffs in Attachment 7.

Comment [RT3]: Check max and min value

6 Assessment Against the DCUSA Objectives

- 6.1 For a DCUSA Change Proposal to be approved it must be demonstrated that it better meets the DCUSA Objectives. There are five General DCUSA Objectives and five Charging Objectives. The full list of objectives is documented in the CP form provided as Attachment 2.
- 6.2 The Working Group has assessed the CP against the DCUSA objectives and the Working Group members agree that the following DCUSA Objective is better facilitated by DCP 227.

Charging Objective Three - 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

- 6.3 The Working Group agrees that Charging Objective Three is better facilitated as the CP removes removing an inconsistency in the allocation of network costs to different tariffs.
- 6.4 In some DNO areas the time that the network levels peak is significantly different from the time of system peak. In these cases, much of the costs of the network are driven by what is occurring outside of the time of system peak. By bringing peaking probabilities into the calculations, DCP 227 would introduce greater cost reflectivity by better reflecting the costs incurred on the network.

7 DCP 227 Legal Drafting

- 7.1 The DCP 227 legal text is provided as Attachment 8. In the legal text, DCUSA Schedule 16 paragraph 72 had been moved to earlier in the legal text and inserted as new paragraph 69A. This has the effect of making the calculation described in the paragraph apply to all tariffs, rather than just multi-rate tariffs.

8 Implementation Date

- 8.1 The proposed implementation date for DCP 227 is 1 April 2016.

9 Consultation Questions

9.1 The Working Group is seeking responses to the following questions.

No.	Question
1	Do you understand the intent of the CP?
2	Are you supportive of the principles established by this proposal?
3	Are there any unintended consequences of this proposal?
4	Do you consider that the proposal better facilitates the DCUSA objectives?
5	Do you have any other comments on the proposed legal text?
6	Are there any alternative solutions or matters that should be considered?
7	Are you supportive of the proposed implementation date of 1 April 2016?
8	Please state any other comments or views on the Change Proposal.

9.2 Responses should be submitted using Attachment 1 to DCUSA@electralink.co.uk no later than **22 July 2015**.

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.

10 Next Steps

10.1 Responses to the Consultation will be reviewed by the DCP 227 Working Group who will use the responses to aid them in the progression of the CP.

10.2 If you have any questions about this paper or the DCUSA Change Process please contact the DCUSA by email to DCUSA@electralink.co.uk or telephone 020 7432 2842.

ATTACHMENTS

- Attachment 1 – Response Form
- Attachment 2 – DCP 227 CP Form
- Attachment 3 – Ofgem CDCM Decision Document
- Attachment 4 – DCP 227 CDCM Model

- Attachment 5 - Illustrative CDCM Tariffs and executive summary of impact
- Attachment 6- EDCM Impact Assessment Approach
- Attachment 7 – EDCM Impact Assessment
- Attachment 8 - Proposed Legal Text