



DCUSA CONSULTATION

DCP 206 – Removal of charge 1 from the EDCM

1 PURPOSE OF THIS CONSULTATION

- 1.1 The Distribution Connection and Use of System Agreement (DCUSA) is a multi-party contract between licensed electricity distributors, licensed electricity suppliers and other parties. The DCUSA also contains the text of several methodologies used by distributors to set charges for connection and use of system, and the DCUSA is the governance mechanism for managing changes to these methodologies.
- 1.2 This consultation concerns Change Proposal (CP) DCP 206, which seeks to modify the Extra High Voltage Distribution Charging Methodologies (EDCM). The proposal would affect both the Forward Cost Pricing (FCP) method in Schedule 17 and the Long Run Incremental Cost (LRIC) method in Schedule 18. Distribution Network Operators (DNOs) use the EDCM to determine use of system charges in respect of the EHV Designated Properties as defined in Standard Condition 13B.6 of the Distribution Licence; these are either connected to the DNO's Distribution System at 22 kilovolts or more, or connected and metered at 1 kilovolt or more to a substation with a primary voltage of 22 kilovolts or more.
- 1.3 DCP 206 is classified as a Part 1 matter. This means that the change will be made if, and only if, Ofgem directs it to be made following an Industry vote. Before Ofgem makes this decision, a Working Group established by the DCUSA panel will prepare a Change Report which will include a specification of the proposed change, a description of its effects, and a detailed summary of the views of the Working Group as to whether, if the proposed variation were made, the Agreement would better facilitate the achievement of the DCUSA General Objectives and Charging Objectives than if that variation were not made. The Working Group will take into account any responses to this consultation when preparing the Change Report. In the light of that Change Report, DCUSA Parties will express a recommendation for or against acceptance through a voting process.
- 1.4 This document is a consultation issued by the DCP 206 Working Group in accordance with Clause 11.14 of the DCUSA and seeks industry and customer views on Change Proposal DCP 206.
- 1.5 The Consultation has been published on www.dcusa.co.uk and has been issued to DCUSA Parties, the Distribution Charging Methodologies Forum (DCMF) Distribution List, and Ofgem. Please feel free to forward this consultation document to any other

interested parties.

- 1.6 You are invited to consider the Change Proposal detailed in this consultation and submit comments using the form attached as Attachment C to dcusa@electralink.co.uk by **Friday 11 July 2014**.

2 BACKGROUND

- 2.1 The EDCM charging methodologies were developed by DNOs pursuant to Standard Condition 50A of the Distribution Licence. That licence condition required each DNO to choose between two common methodologies to develop and implement. The two methodologies were “long run incremental cost” (LRIC) and “forward cost pricing” (FCP).
- 2.2 The EDCM charging methodologies for import came into force on 1 April 2012. The EDCM charging methodologies for export came into force on 1 April 2013.
- 2.3 DNOs were obliged to develop each methodology to conform to the principles and assumptions specified in an Ofgem publication entitled “Delivering the electricity distribution structure of charges project: decision on extra high voltage charging and governance arrangements”, reference 90/9, dated 31 July 2009,¹ unless these were varied by Ofgem.
- 2.4 For import tariffs, the principle set by Ofgem was that charges would comprise:
- Incremental charges (now known as charge 1).
 - A fixed adder (also known as scaling).
 - Sole use asset charges.
 - An allocation of network rates and transmission exit charges.
- 2.5 The incremental charge 1 is intended to reflect forward-looking costs of reinforcing the distribution network. The main difference between the FCP and LRIC methodologies is in the methods and assumptions used to calculate charge 1.
- 2.6 Much work was done to develop the methodology for scaling as part of the

¹ https://www.ofgem.gov.uk/sites/default/files/docs/2009/07/july-decision-ehv-charging-and-governance_0.pdf

development of the EDCM, starting from the concept of a simple fixed adder. The resulting scaling methodology, which is common to FCP and LRIC, comprises two parts:

- A “fixed adder”, which is a non-locational contribution to import capacity charges which depends on deemed super red consumption.
- An “asset scaler”, which is a locational contribution to import capacity charges which is based on the assets notionally used to provide the supply, where notional assets at the network level of the point of connection are sized on the basis of capacity, and notional assets at levels above the point of connection are sized on the basis of deemed super red consumption.

2.7 Ofgem’s 2009 document identified charge 1 as a tool to prevent inefficient capital expenditure by DNOs. Ofgem said:

“2.5. We have looked at both of these charging methodologies in detail and remain of the view that the LRIC methodology would provide the most cost reflective foundation for the common methodology at EHV level. Although our preference for LRIC over FCP is finely balanced (in that FCP does have benefits over LRIC such as greater stability and predictability of charges), we continue to have concerns about the cost reflectivity of the FCP methodology. Given these concerns, and to ensure customers are adequately protected, as part of the general review of investment in the following price control review (DPCR6) we will scrutinise the investment decisions of those DNOs choosing to implement the common FCP methodology to ensure that it has not led to inefficient capital expenditure as a result of poor cost signalling.”

3 INTENT OF DCP 206 “REMOVAL OF CHARGE 1 FROM THE EDCM”

3.1 DCP 206 has been raised by E.ON at the request of the Methodologies Issues Group. The intent of this proposal is to remove charge 1 from the calculation of import charges under Schedule 17 “EHV charging methodology (FCP model)” and under Schedule 18 “EHV charging methodology (LRIC model)”.

4 PROPOSED SOLUTION

4.1 The proposed solution set out in the change proposal is to remove charge 1 from the

calculation of EDCM import tariffs, without making any changes to the calculation of EDCM export tariffs or to the calculation of the total revenue target across all EDCM import tariffs (sometimes called the EDCM demand revenue pot).

5 DRAFT LEGAL TEXT

- 5.1 The Working Group requests views on the proposed legal text, which is included as Attachment B.
- 5.2 The legal text takes a minimum change approach; charge 1 is set to zero but the rules governing its interaction with other parts of the methodology are left intact. The rationale for this approach is that it would facilitate the introduction of a new charge 1 in the future in the event that a future change proposal identifies a replacement for FCP and/or LRIC which would be charged in a similar manner.
- 5.3 By eliminating the charge 1 element from import tariffs, DCP 206 would make the FCP and LRIC methodologies more similar. But it would not entirely eliminate the difference between these methodologies, because DCP 206 does not propose any change to the use of system credits which are payable to some generators under the EDCM. These credits are calculated on the basis of the FCP or LRIC charge 1. The estimated total cost of generation credits affects import tariffs through the demand scaling element.

6 IMPLEMENTATION DATE

- 6.1 The Working Group invites views on the appropriate implementation date for DCP 206.
- 6.2 The CP form states that DCP 206 should be implemented in such a way that it affects charges levied from 1 April 2015. However, given the passage of time since the proposal was originally developed, it might now be appropriate to defer implementation to 1 April 2016 so as to give a longer period of notice to customers.

7 IMPACT ANALYSIS

- 7.1 The Working Group has asked DNOs to produce an impact analysis of the proposed change based on 2014/2015 published charges. This is contained in Attachment D. This attachment shows the tariffs before and after the change.
- 7.2 Attachment D does not show the total charge/revenue for each customer, as doing so would reveal site-specific information about capacity and consumption which

customers might consider confidential.

7.3 To produce this impact analysis each DNO has made the following amendment to its EDCM models:

- In model F201, replace the formula in every data cell of table 4227, table 4411 and table 4413 with “=0”.
- In model L201, replace the formula in every data cell of table 4260, table 4412 and table 4414 with “=0”.

7.4 Populated EDCM models have never been published as they contain site-specific information about capacity and consumption which customers might consider confidential.

7.5 In general terms, the impact of DCP 206 on EDCM demand tariffs is to:

- Remove super red unit rates, where present.
- Remove any charge 1 contribution to capacity charges.
- Increase the contribution of the “fixed adder” to capacity charges. The fixed adder is a non-locational contribution to import capacity charges which depends on deemed super red consumption.
- Increase the contribution of the “asset scaler” to capacity charges. The asset scaler is a locational contribution to import capacity charges which is based on the assets notionally used to provide the supply. Notional assets at the network level of the point of connection are sized on the basis of capacity, and notional assets at levels above the point of connection are sized on the basis of deemed super red consumption.

7.6 The fixed adder and the asset scaler can be negative. In that case, the effect of DCP 206 is to reduce the absolute value of the negative contribution, or to flip it to a positive contribution.

7.7 In a small number of cases, DCP 206 would lead to a change in fixed charges. This occurs where, for legacy reasons, an EDCM capacity charge has been applied as a fixed charge.

7.8 DCP 206 would not affect EDCM export tariffs, or total EDCM revenue. It would therefore have no effect on CDCM tariffs.

7.9 One member of the working group suggested that DNOs provide, for publication, aggregated data about the EDCM model with and without DCP 206. The aggregated data would have been those that appear on sheets 11, OneLiners and/or Aggregates of the EDCM model, which relate to the DNO area as a whole rather than any customer. Other members of the working group stated that some customers were very sensitive about their charges being discussed without their consent. Overall, there was no support for the suggestion to release aggregated data from any other member of the working group. Consequently, this idea was not pursued and no such information is included in this consultation.

8 WOULD THE CHANGE BETTER FACILITATE THE RELEVANT DCUSA OBJECTIVES?

8.1 One of the main tasks of the DCP 206 Working Group is to prepare a Change Report that includes a detailed summary of the views of the Working Group as to whether, if the proposed variation were made, the Agreement would better facilitate the achievement of the DCUSA Objectives than if that variation were not made.

8.2 The relevant DCUSA Objectives are:

- Charging Objective 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
- Charging Objective 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)
- Charging Objective 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

- Charging Objective 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
- Charging Objective 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.
- General Objective 1: The development, maintenance and operation by the DNO Parties and IDNO Parties of efficient, co-ordinated, and economical Distribution Networks
- General Objective 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
- General Objective 3: The efficient discharge by the DNO Parties and IDNO Parties of obligations imposed upon them in their Distribution Licences
- General Objective 4: The promotion of efficiency in the implementation and administration of this Agreement
- General Objective 5: 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.

8.3 Responses to this consultation will be an essential source of information to help the Working Group reach its opinion about whether DCP 206 better facilitates the relevant objectives.

8.4 This section sets out the Working Group's preliminary review of factors that will need to be considered to form a view. The factors are classified into benefits and drawbacks.

Benefits identified in the DCP 206 proposal form

8.5 The proposal form for DCP 206 explains that DCP 206 is intended to address a perceived defect in the existing EDCM. The alleged defect is that the charge 1 elements of the

EDCM could impose charges that reflect future hypothetical investments needed to meet the growth in demand of other customers. For example, these charge 1 elements could require a current EDCM customer to pay for some of the costs to the DNO of supplying other future customers.

- 8.6 As a result, according to the proposal form, the application of charge 1 to EDCM import tariffs is not cost reflective, and it might lead to unfair charges in cases where the costs underpinning charge 1 are not needed or used to distribute electricity, now or in the future, to an EDCM demand customer who would be paying charge 1.
- 8.7 According to the proposal form, the proposed solution of removing charge 1 from the calculation of EDCM import tariffs is a targeted, simple and effective way of addressing the alleged defect.
- 8.8 One of the main impacts of DCP 206 is to increase demand scaling, to make up the shortfall from the removal of charge 1, since DCP 206 does not propose to change the overall target revenue for EDCM import tariffs. The change proposal form claims that EDCM demand scaling is based on capacity, consumption, and assets notionally used to maintain the supply to the customer, and that, compared to charge 1, EDCM scaling better reflects the costs incurred or reasonably expected to be incurred by the DNO in providing distribution services to EDCM demand customers. The Working Group noted that the method for demand scaling was established at a late stage within the development of the EDCM and that earlier concerns about the magnitude of demand scaling had been made less relevant by the cost reflectivity of EDCM demand scaling.
- 8.9 The proposal form claims that the omission of charge 2 from the EDCM for generation (which came into effect on 1 April 2012) has already addressed the corresponding issue for EDCM export tariffs, and that DCP 206 would apply the same principle to EDCM import tariffs.
- 8.10 In terms of specific relevant objectives, the change proposal form claims that implementation of DCP 206 would better facilitate the relevant objectives related to facilitating or not restricting competition, and to setting charges which reflect costs incurred or reasonably expected to be incurred by DNOs.

Other possible benefits identified by the Working Group

- 8.11 Attachment E provides a simple illustrative case study which shows that, in the

hypothetical circumstances of that case study, DCP 206 would improve cost-reflectivity and fairness of the EDCM.

8.12 Charge 1 is calculated on the basis of a model's estimate of future requirements for investment in network reinforcement. This may be materially affected by changes in the use of the network by other customers, or changes in network configuration that affect modelled investment needs. The DCP 206 solution therefore removes a source of uncontrollable (from the point of view of an EDCM customer) uncertainty and volatility from its future charges.

8.13 Charge 1 is designed to drive demand away from areas of the network where reinforcement is likely to be needed in the near future. Removing charge 1 would therefore facilitate business expansion and investment by customers in such areas. The DNO's connection charging methodology helps ensure that customers make a fair contribution to the cost of any investment in the distribution system that may be required as a result. Thus, DCP 206 could facilitate efficient economic growth.

Possible drawbacks identified by the Working Group

8.14 One of the main impacts of DCP 206 is to push the shortfall of LRIC or FCP charges to other EDCM customers through EDCM demand scaling. The change proposal form claims that EDCM demand scaling is based on capacity, consumption, and assets notionally used to maintain the supply to the customer, and that, compared to charge 1, EDCM scaling better reflects the costs incurred or reasonably expected to be incurred by the DNO in providing distribution services to EDCM demand customers. Nonetheless, DCP 206 has the effect of increasing the effective rate of return applied to notional assets through demand scaling, and there is therefore a risk that DCP 206 leads to excessively high rates of return being levied on these notional assets.

8.15 Given the Working Group's decision not to compile aggregated data (see above), it has not been possible to analyse whether the rates of return implied by the demand scaling charge are driven to excessive levels by DCP 206. The reason we have not been able to gather this data is due to issues regarding confidentiality of customer data by the majority of the working group.

8.16 The impact analysis shows that some charges would be materially increased by DCP 206. Some of these might relate to customers with low or zero charge 1 but relatively

large notional assets, which will attract greater asset scaler charges if DCP 206 is implemented.

8.17 The Working Group asked DNOs whether they could identify specific cases in which the application of charge 1 had led to any benefit (and therefore its removal could have detrimental effects). Nothing was identified. DNOs explained that it was unlikely that distribution use of system charges could be shown to be instrumental in a customer's decision whether or not to invest in something like a major industrial project.

8.18 The Working Group noted that DCP 206 would remove all unit rates from EDCM demand tariffs, and that the existence of a super red unit rate might give a useful signal to customers about avoiding network use at peak time. The Working Group noted that, once DCP 206 has been implemented, it would be possible to introduce a new basis for unit rates to provide such a signal, for example by transferring the element of capacity charges which is driven by consumption to be charged as a unit rate instead. However, developing such a change could raise a number of complexities and would not fall within the intent of DCP 206. In this context, a drawback of DCP 206 is that it might lead to the removal of unit rates from EDCM demand tariffs, followed by their reintroduction shortly afterwards.

Summary of benefits and drawbacks identified so far

8.19 The following table summarises the benefits and drawbacks identified so far. The Working Group is particularly interested in consultation responses that challenge, or add to, this preliminary analysis.

Topic	Benefit or drawback of DCP 206 solution?	Description
Removal of an allocation of costs to the wrong customer	Benefit	<ul style="list-style-type: none"> With DCP 206, EDCM customers will no longer be charged for the costs of investment to be undertaken by the DNO to serve other customers. See for example Attachment E case study.
Greater predictability of charges (after implementation)	Benefit	<ul style="list-style-type: none"> With DCP 206, EDCM customers are not longer exposed to the risk that changes in the use of the network by other customers, or changes in network configuration that affect modelled investment needs, will lead to dramatic changes in their charges.

Topic	Benefit or drawback of DCP 206 solution?	Description
Increase in EDCM demand scaling	Benefit (on the data available)	<ul style="list-style-type: none"> • DCP 206 increases EDCM demand scaling. • In general terms, this is a benefit of DCP 206 because scaling (based on capacity, consumption, and assets notionally used to maintain the supply) reflects costs. • However, there is a risk that DCP 206 might drive the the rate of return on notional assets that is implied by the asset scaler to an unreasonable level. No information is available to the Working Group about that rate of return.
Increase in business investment	Benefit	<ul style="list-style-type: none"> • By removing a potentially volatile and allegedly unfair element of charges, DCP 206 may facilitate investment by network users in their businesses, potentially leading to additional investment in distribution networks. • Thus, DCP 206 might enable additional economic activity and investment in useful infrastructure.
Significant shock to charges on DCP 206 implementation	Drawback	<ul style="list-style-type: none"> • According to the impact analysis, DCP 206 leads to material increases in some EDCM customers' use of system charges. • Even if these increases are justified (e.g. if EDCM demand scaling is cost-reflective and not excessive), the unforeseeable nature of the increase makes it a drawback of the solution.
Removal of all unit rates	Possible drawback	<ul style="list-style-type: none"> • DCP 206 would remove all unit rates from EDCM demand tariffs. • There is a risk that unit rates will be reintroduced by a subsequent change to the EDCM, perhaps because a super red unit rate is argued to provide a useful signal to customers about avoiding network use at peak time.

Would the varied methodology better meet the relevant objectives?

8.20 Having reviewed the benefits and drawbacks listed above, the Working Group's preliminary views are that material impacts of the proposed change on the relevant objectives relate to competition (Charging Objective 2 and General Objective 2) and to cost-reflectivity (Charging Objective 3).

- 8.21 The CP form claims that DCP 206 would facilitate competition in generation because it eliminates a non-cost-reflective element of the import charges levied on EDCM generators in respect of station demand, without changing generation credits. The Working Group noted that this effect might be negligible as use of system charges for station demand are rarely significant in the business case for a generation investment.
- 8.22 The CP form claims that DCP 206 would facilitate competition in supply because it eliminates a particularly opaque and unpredictable element of the distribution charges, thus facilitating competition by suppliers who are prepared to take some distribution charge risk or to help customers manage their distribution charges. The Working Group noted that there are other complex, opaque and hard-to-predict elements within the EDCM which might continue to constrain suppliers from being willing to take the associated risk even after DCP 206 had been implemented.
- 8.23 The CP form claims that DCP 206 would remove distortions to competition in the distribution of electricity by eliminating a perverse incentive for customers to build their own infrastructure, so as to avoid non-cost based charge 1 which is currently levied for use of some spare capacity on the DNOs' network.
- 8.24 The CP form claims that DCP 206 would better facilitate the cost-reflectivity objective because the change removes charge 1, which is an element of the calculation of charges to an EDCM demand customer that does not reflect the costs incurred, or reasonably expected to be incurred, by the DNO in maintaining the supply to that EDCM demand customer; and because, compared to charge 1, EDCM scaling better reflects the costs incurred or reasonably expected to be incurred by the DNO in providing distribution services to EDCM demand customers.
- 8.25 The CP form does not claim any other material effect on the relevant objectives. At the time of writing this consultation, the Working Group believes that the other benefits and drawbacks considered above do not give rise to a material impact on the relevant objectives. But the Working Group considers that the removal of unit rates and the significant shock to charges that DCP 206 would cause are relevant to the choice of implementation date. A later implementation date (such as 1 April 2016) would ensure that customers have a long period of notice, and that another modification to re-introduce unit rates could be brought forward and developed for simultaneous implementation with DCP 206.

9 IMPACT ON GREENHOUSE GAS EMISSIONS

- 9.1 The change proposal form does not state that the change proposal would have an impact on greenhouse gas emissions.
- 9.2 Whilst the change's immediate effect is merely financial, it could have a secondary impact on greenhouse gas emissions. The change proposal changes the level, structure, and risks associated with use of system charges, and it could therefore affect the choices that businesses, investors or creditors make to operate or invest in different parts of England, Wales or Scotland or elsewhere in the world; to use electricity at different times; or to use electricity as opposed to substitutable inputs such as diesel.
- 9.3 The Working Group's preliminary view is that these secondary effects are not relevant to its work. This is on the basis that greenhouse gas emissions are only relevant to the assessment of charging methodology changes under DCUSA insofar as they are emissions associated directly with electricity distribution.
- 9.4 The Working Group does not believe that consideration of the impact on greenhouse emissions should play a role in its assessment of DCP 206.

10 INVITATION TO JOIN THE DCP 206 WORKING GROUP

- 10.1 The DCP 206 Working Group was formed by volunteers following an invitation sent to all DCUSA Parties and interested parties on 24 March 2014. The members of the Working Group are required to act independently, not as delegates, as described in the DCUSA working group terms of reference.
- 10.2 An observer from Ofgem also attended meetings of the Working Group.
- 10.3 The DCP 206 Working Group members and observer have, between them, significant experience and expertise in the development of the EDCM, the use of the EDCM to set charges, and some experience of the analysis of EDCM charges from a customer perspective. But there might be an opportunity for additional members to bring a greater breadth of experience and expertise about the perspective of EDCM customers, or an in-depth understanding of any economic principles that might have underpinned the inclusion of charge 1 within Ofgem's original requirements for the EDCM.
- 10.4 Applications are invited from any expert who may wish to be considered for membership of the Working Group. No remuneration is available for membership of

the Working Group but reasonable travel expenses will be covered. To enquire about the terms of membership of DCUSA Working Groups, or if you have any questions about this paper or the DCUSA Change Process please contact the DCUSA Help Desk by email to dcusa@electralink.co.uk or telephone 020 7432 3014.

10.5 Following the conclusion of this consultation, the Working Group's immediate tasks will be to debate the benefits and drawbacks of the DCP 206 solution, and to plan the work that will need to be undertaken in order to complete the Change Report.

11 CONSULTATION QUESTIONS

11.1 You are asked to consider the intent and impact of DCP 206 and answer the following consultation questions:

1. Do you understand the intent of DCP 206?
2. Do you support the principles of DCP 206?
3. Do you have any comments on the proposed solution?
4. Do you have any comments on the proposed legal drafting?
5. Would you prefer the implementation date to be 1 April 2015 or 1 April 2016?
6. Are you aware of any wider industry developments that may impact upon or be impacted by this change proposal? If so, please give details.
7. Has the Working Group correctly identified the benefits and drawbacks of DCP 206? If not, please explain how the analysis should be improved.
8. Do you feel that DCP 206 will better facilitate any of the DCUSA General or Charging Objectives? Please provide supporting comments or evidence that might help the Working Group improve its assessment.
9. Do you have any further comments on DCP 206?

11.2 The Consultation response form (Attachment C) should be submitted to dcusa@electralink.co.uk no later than **Friday 11 July 2014**. Parties are asked to provide sufficient detail to enable the Working Group to understand the comments and the reasons behind them.

11.3 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. Any responses or part of responses that are not marked confidential may be published or quoted from in the change report and elsewhere.

12 APPENDICES

- Attachment A – Original DCP 206 proposal form
- Attachment B – Proposed Legal Text
- Attachment C – Response Form
- Attachment D – Impact Analysis Spreadsheet
- Attachment E – Illustrative Case Study