















Part A: Generic

DCUSA Change Proposal (DCP)		At what stage is this document in the process?
<h1>DCP:392</h1> <h2>Charging of Third Party DNO works to transmission connection users.</h2> <p>12/07/2021</p> <p>Simon Vicary</p> <p>EDF Energy</p> <p>Supplier</p>		<p>01 – Change Proposal</p> <p>02 – Consultation</p> <p>03 – Change Report</p> <p>04 – Change Declaration</p>
<p>Purpose of Change Proposal:</p> <p>To apply the common connection charging method (CCCM) to all electricity connections in respect of DNO works, regardless of whether they are directly connected to a distribution system or not, and to apply the equivalent of the Electricity (Connection Charges) Regulations (ECCR) for reimbursement to the transmission-connected customer where cost apportionment factor (CAF) rules do not apply so that full charge for works is initially made to the transmission connected customer.</p>		
	<p>Governance: The Proposer recommends that this Change Proposal should be:</p> <ul style="list-style-type: none"> Part 1 Matter Treated as Standard Change Proceed to a Working Group <p>The Panel will consider the proposer’s recommendation and determine the appropriate route.</p>	
	<p>Impacted Parties: Generators (including storage and any other transmission users impacting the distribution system) and DNO Parties</p>	
	<p>Impacted Clauses: Schedule 22</p>	

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Indicative Timeline	
The Secretariat recommends the following timetable:	
Initial Assessment Report	
Consultation Issued to Industry Participants	
Change Report Approved by Panel	
Change Report issued for Voting	
Party Voting Closes	
Change Declaration Issued to Parties	
Change Declaration Issued to Authority	
Authority Decision	
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1 Summary

What?

1. It is proposed that the common connection charging method (CCCM) be applied to all electricity connections in respect of DNO works, regardless of whether they are directly connected to a distribution system or not.
2. It is proposed that the equivalent of the ECCR be applied to provide reimbursement to transmission-connected customers in circumstances where the CAF rules do not apply and full charge for works is initially made to the transmission-connected customer.

Why?

A transmission-connected customer (typically generation or energy storage) may be obliged to undertake a CUSC Third Party Works assessment with an affected Third Party (typically a DNO/DSO) as a condition of their contract with the NETSO. This is particularly the case for transmission connections very close to the DNO system, such as to “tertiary” windings on the final Grid transformer that interfaces on to the DNO. As it stands, there is currently no mechanism to apply the CCCM to transmission connected customers who are not applying for a distribution connection pursuant to s16 of the Electricity Act. This means that the transmission customer who triggers the works is currently responsible for picking up 100% of the cost of works regardless of their incremental contribution. If there are multiple transmission customers due to connect who require common works, the cost currently falls in full to the triggering party. This can create a situation whereby the transmission customer is creating benefit for other transmission customers or on the DNO’s network without any compensation being received. This means that transmission connected generation are not on a level playing field with similar projects that are distribution-connected, so that otherwise viable projects may not be able to continue being developed; it creates a false and inefficient incentive to connect at distribution voltage nearby. It has been confirmed that issues relating to cost apportionment for third party works do not fall within the scope of CMP328. This mod is not dependent on CMP328.

It should be noted that some DNO areas are aligning Third Party Works cost apportionment with CCCM methodology already. This modification seeks to formalise the arrangement as described below and to ensure consistency amongst DNOs.

Where there is a later SCR Direction as part of Ofgem’s review of network access and forward looking charges, which would follow after the consultation had ended on the second part of that review to come at the end of this year, if it (contrary to the content of the minded-to decision on the access part of that review) does alter DG connection charging such that the CAF itself is modified, if this mod is passed, the new baseline would by then include this modification and any changes to the CAF could be given effect also to the DNO charge to new transmission connectees, in the mod that would be worked up following the SCR direction. However, the minded to decision document¹ makes no reference to the CAF or the ECCM.

Live Project 1 – an example

¹ <https://www.ofgem.gov.uk/publications/access-and-forward-looking-charges-significant-code-review-consultation-minded-positions>

- 49.9 MW 13 kV tertiary connected battery scheme at a southern GSP.
- DNO proposes to upgrade the CBs to 40 kA rating at a cost of £3.83M, fully funded by the triggering party.
- 1x distribution CB increases to 96.5% of its asymmetrical break limit (29.34 kA) so must be replaced. Customer contribution is 0.54 kA.
- A further 8x CBs are pushed out of their single and three phase fault ratings (27 kA). Single phase rating is breached first. Customer contribution is 0.21 kA. These 8 CBs are already operating at 99.8% of their rating before our connection.
- A further 1x CB is being replaced anyway under a capital scheme.
- DNO did not have capital funding to replace other stressed breakers that needed replacing anyway. Transmission customer will provide this funding for their benefit.
- Assuming all CBs are evenly priced, the 8x CBs should cost £3.40M. Fault level CAF = $3 \times (0.21/40) \times 100 = 1.6\%$
- Under CAF, customer contribution would be £54,471.
- For the first CB, fault level CAF = $3 \times (0.54/40) \times 100 = 4.1\%$
- Under CAF, customer contribution would be £17,448.
- If project was distribution connected, customer could contribute £71,919 under the CAF mechanism, with the remainder being covered by the DNO and socialised across subsequent customers.
- Presently, the transmission customer is facing an effective £3.79M penalty for opting for a transmission connection. This is anti-competitive and could result in cancellation of the project on economic viability grounds.

Live Project 2

- 49.9 MW 13 kV tertiary connected solar and storage scheme at a south western GSP.
- DNO's third party works assessment highlighted widespread thermal constraints.
- Mitigation required 30.5km of 132 kV reinforcement.
- Cost £17.7M. If CAF was applied, cost would be approx. £10.4M taking into account the £200/kW high-cost reinforcement cap.
- This is an approx. £7.3M over-spend by the transmission user for the DNO's benefit.
- Active, enduring solutions technically possible but this is currently outside the contractual scope of the third party works process. Something CMP328 is considering.
- To date, no options have been pursued and the project is at real risk of cancellation.

How?

The proposed change will apply the principles of CCCM to transmission users who trigger assessments with a Third Party. This will allow the full cost of works to be apportioned based on the proportion of thermal capacity or fault level headroom used by the new customer. The same process will then be used for second comer charges for distribution connected customers and DNOs to be rebated if another distribution connect party makes use of capacity they have paid for.

2 Governance

Justification for Part 1 and Part 2 Matter

The change proposal should be treated as a "Part 1" matter as it is having a "significant impact on competition" in the "generation of electricity". Currently transmission users who trigger assessments with a Third Party are liable to cover 100% of the costs of the works which can lead to projects not going ahead or gaming of the market i.e., Applying on the distribution system concurrently to trigger apportioned

reinforcement or engaging in multiple Mod Apps to avoid being the triggering party. The current mechanism also “discriminates in its effect between one class of Parties and another class of Parties” as a distribution customer connected customer of the same size and at the same time will pay less than a transmission customer despite having the same effect on the distribution system. The Authority may also wish to consider if this practice contravenes DNO SLC13 whereby charging methodologies should “facilitate competition in the generation ... of electricity, and does not restrict, distort, or prevent competition”, as well as DNO SLC 4 whereby “The licensee must at all times manage and operate the Distribution Business in a way that is calculated to ensure that it does not restrict, prevent, or distort competition in the supply of electricity or gas, the shipping of gas, the generation of electricity, or participation in the operation of an Interconnector.”.

Requested Next Steps

This Change Proposal should:

- Be treated as a Part 1 Matter
- Be treated as a Standard Change
- Proceed to a Working Group

3 Why Change?

Cost apportionment as set out in the CCCM needs to be adopted for connections triggering distribution impact assessments to equalise the playing field between distribution and transmission connected assets and remove disproportionate distribution connection charges currently levied on impacting transmission users. The current mechanism, which charges 100% of DNO works to the impacting transmission connection user, is anticompetitive for transmission connection users and this must be rectified to ensure the distribution charging methodology no longer discriminates against one class of Parties.

Part B: Code Specific Details

4 Solution and Legal Text

Legal Text

Insert in Schedule 22 – Common Connection Charge Methodology - Introduction Section;

“7. The methodology for connection charging under the CCCM and the principles of the ECCR shall be commercially applied in respect of DNO Party charges for works arising from the impact of a user connected or to be connected directly to the transmission system, notwithstanding a transmission user being out with the mandatory legal scope of the ECCR. For the purposes of charging a user connected or to be connected directly to the transmission system because of a Third-Party Works referral or Distribution Impact Assessment referral, both defined by the CUSC, the DNO Party shall in respect of charging for its works treat the relevant transmission user on the same basis as a distribution connected user.”

This mod does not alter the legal scope of the ECCR, but ensures comparable treatment for transmission users to avoid a blatant discrimination.

Text Commentary

The proposal ensures that for the same electrical effects and the same need for reinforcement works, that a user connected or to be connected to a transmission system and causing the need for DNO works, is charged on the same principles as a user connected or connecting directly to a DNO system. The proposal ensures that such a transmission user does not bear costs for newly created capacity that its impact does not require and that the DNO holds the proportion of costs of spare capacity for future benefit. The proposal ensures that where a transmission user does fund DNO works and subsequent, typically DNO users, have benefit of those works, that the transmission user will receive proportionate refunding of charges made to it as would be the case for a first-comer DNO user.

5 Code Specific Matters

Reference Documents

No additional documents appended.

6 Relevant Objectives

DCUSA Charging Objectives Please tick the relevant boxes.	Identified impact
<input type="checkbox"/> 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	Positive The proposed change enables the DNO Parties to not distort competition in generation or in competition in distribution or transmission as set out as an obligation in distribution licence standard condition 4 – para 4.6(c).
<input type="checkbox"/> 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)	Positive
<input type="checkbox"/> 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	Positive

<input type="checkbox"/> 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	Positive
<input type="checkbox"/> 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.	None
<input type="checkbox"/> 6 that compliance with the Charging Methodologies promotes efficiency in its own implementation and administration.	None
<p>The change proposed results in consistent proportional charging for works undertaken by a DNO Party irrespective of whether the user causing the works is connected to the distribution system or the transmission system, reflection a fair allocation of costs of network capacity according to connecting user needs and recognition of socialised benefits for future user needs.</p>	

DCUSA General Objectives	Identified impact
Please tick the relevant boxes.	
<input type="checkbox"/> 1 The development, maintenance and operation by the DNO Parties and IDNO Parties of efficient, co-ordinated, and economical Distribution Networks	Positive
<input type="checkbox"/> 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	Positive
<input type="checkbox"/> 3 The efficient discharge by the DNO Parties and IDNO Parties of obligations imposed upon them in their Distribution Licences	Positive
<input type="checkbox"/> 4 The promotion of efficiency in the implementation and administration of the DCUSA	Positive The proposed application is not different to that for a distribution connector.
<input type="checkbox"/> 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.	None
We refer to our comment on DCUSA Charging Objectives.	

7 Impacts & Other Considerations

i. Who (i.e., which industry roles) is impacted;

Transmission users impacting a DNO Party system will benefit from proportionate charges for works.

DNO Party's will experience reductions of charges to impacting transmission users from 100% to a proportion calculated amount but noting that the proposed correction to charges would be to the same extent for a directly connected DNO user and with DNO's allowed revenue trued up within RIIO price control arrangements to reflect changes in connection charging.

ii. Which processes are impacted;

We believe no processes are impacted as DNO have processes for determining cost apportionment and ECCR refunding.

iii. Systems impacted;

We believe no systems are impacted as DNO capabilities for charging transmission users for impact works already exists and all that is proposed to change is the calculated charge made to the impacting transmission user.

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

This change proposal is closely linked with CMP328; Connections Triggering Distribution Impact Assessment. It does however work without CMP328. This modification proposes to put in place an appropriate administration process to be utilised when any connection triggers a Distribution impact assessment, however the CUSC proposal does not and cannot cover the DNO's cost apportionment of the works; they are operating on different dimensions. We have had confirmation (including via discussion at the CMP328 workgroup) that the issue relating to socialising the cost of works should be raised separately and does not fall under the scope of CMP328, hence the raising of this change proposal.

The minded-to decision on the first part of Ofgem's review of access and forward looking charges is now out for consultation. A past modification, DCP384, was held back due to uncertainty over whether it would overlap in scope with the proposals due to come forward under that review, and hence could have been considered in scope of a live SCR under DCUSA 10.23.2. The minded-to decision on the first part of Ofgem's review of access and forward looking charges has three parts : it proposes that :

1. Connection charges for new DG should be more shallow than at present, in that they will no longer be charged the reinforcement costs on the DNO network that result from their connection, one voltage level up (the "voltage rule") (there are related proposals for new embedded demand connections, too)
2. DG of 1 MW to 100 MW should begin to pay GTNUoS charges (there are proposals also in relation to <1 MW DG and removing the current cap on the embedded export tariff)
3. Flexible access for new DNO connectees (already a feature of many new DG connections) on an opt-in basis is proposed to be formalised with some new limitations on the extent of possible curtailment.

None of (1) to (3) above, interacts with this new DCP.

The minded-to decision on the second part of Ofgem's review of access and forward looking charges, is due either later this year, or early next year, and Ofgem has said that any SCR Direction, including in relation to the first part of the review, will not come out until the consultation is complete on the minded-to decision on that second part. The second minded-to is generally expected to comprise a fundamental review of DUoS charging, including a far more granular approach to DUoS charging zones, greatly increasing the number of zones. The "triad" basis of TNUoS HH demand charging might be abolished or reformed via this later paper. The first paper, does give some more detailed pointers than were available before of the scope of the second and final minded-to decision for consultation under this SCR. This final phase of the SCR will consider whether generation should continue to receive credits for all export, or receive declining credits, based on the level of generation – or, face charges where generation is driving costs. The final phase of the SCR will also consider whether capacity "exceedance" charges may be needed. It will explore the possibility of exposing users to the additional costs incurred by the DNO that arise from non-compliance with access rights, in order to provide a financial incentive to encourage users to stay within their agreed access levels. It may include recommendations for discounted DUoS charges for zones with spare capacity, reflecting that reinforcement is unlikely to be needed there in the medium term. And it will consider the design of DUoS charges, particularly the extent that costs should be recovered through capacity or consumption-based charges. DCUSA and CSUC mods to take these proposals forward, if Ofgem proceeds, will NOT be raised via an SCR direction until that second minded-to decision has come out, probably very late this year (but delay to 2022 is possible).

It is evident from the above that none of the SCR's scope overlaps or conflicts with this DCP. It is therefore now clear that this DC is robust to the different outcomes of the SCR and does not fall within the

SCR's scope. The mod is not at risk of detracting industry/Ofgem from the SCR due to not overlapping with it or "contaminating" it. Moreover the issue arising from the discrimination – the unlevel playing field between essentially very similar new connectees – is a live and pressing issue that is preventing projects from proceeding. We consider it to be urgent.

Does this Change Proposal Impact Other Codes?

Please tick the relevant boxes and provide any supporting information

BSC	<input type="checkbox"/>
CUSC	<input checked="" type="checkbox"/>
Grid Code	<input type="checkbox"/>
MRA	<input type="checkbox"/>
SEC	<input type="checkbox"/>
Other	<input type="checkbox"/>
None	<input type="checkbox"/>

Consideration of Wider Industry Impacts

This issue was first raised at the DCUSA Standing Issues Group on 25/02/2021.

One member asked how a DCUSA change would impact the transmission charging boundary. It was also noted that National Grid ESO have stated that this issue is out of scope of CUSC as this is a DNO charging matter that should be picked up with DNOs. It was noted that the intent would be to apply the DNO charging methodologies to all works undertaken by the DNO regardless of whether the impacting user is connected directly to a licenced distribution connection or not.

It was agreed that a change proposal was the most appropriate next step.

Confidentiality

As far as we are aware no parts of this change proposal need to remain confidential.

8 Implementation

Next scheduled release or within one month of Authority Consent, whichever is sooner.

Proposed Implementation Date

We propose an extraordinary release given the impact on affected users.

We propose no later than one month following approval by the Authority, noting;

1. There is no change in methodology of charging to other parties and therefore no advance notification of change is required;
2. existing DNO Party processes can be readily applied unamended to the basis of charges to an impacting transmission user.

9 Recommendations

To be completed with any comments from the Initial Assessment review by the DCUSA Panel.