




| DCUSA Change Report | | At what stage is this document in the process? |
|---|---|--|
| <h1>DCP 425:</h1> <h2>Cost Apportionment Factor “cap” methodology</h2> <p>Date raised: 13 July 2023</p> <p>Proposer Name: Lee Wells</p> <p>Company Name: Northern Powergrid</p> <p>Company Category: DNO</p> | | 01 – Change Proposal |
| | | 02 – Consultation |
| | | 03 – Change Report |
| | | 04 – Change Declaration |
| Purpose of Change Proposal: <p>The intent of this Change Proposal (“CP”) is to provide further clarification as to how costs of Reinforcement are apportioned between the Company and the Customer (a Generation Connection) when the High-Cost Project Threshold is triggered.</p> | | |
|  | This document is issued in accordance with Clause 11.20 of the DCUSA, and details on DCP 425. | |
| | Parties are invited to consider the proposed amendment (Attachment 5) and submit their votes using the Voting form (Attachment 1) to dcusa@electralink.co.uk by 15 April 2024. | |
| | The voting process for the proposed variation and the timetable of the progression of the Change Proposal (CP) through the DCUSA Change Control Process is set out in this document. | |
| | 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 3011. | |
|  | Impacted Parties: DNOs and IDNOs | |
|  | Impacted Clauses: Amendments to Schedule 22 | |

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 **Any questions?**

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Timetable

The timetable for the progression of the CP is as follows:

Change Proposal timetable

| Activity | Date |
|--|-------------------------------------|
| Initial Assessment Report | 16 August 2023 |
| Consultation Issued to Industry Participants | 10 November 2023 |
| Change Report Approved by Panel | 20 March 2024 |
| Change Report issued for Voting | 21 March 2024 |
| Party Voting Closes | 15 April 2024 |
| Change Declaration Issued to the Authority | 16 April 2024 |
| Authority Decision | TBC |
| Implementation | 10 working after Authority Decision |

1 Executive Summary

What?

- 1.1 Prior to the implementation of the Authority's Access SCR final decision (the "Access SCR Decision"),¹ and for (i) an application received prior to 1 April 2023 and (ii) a Customer that was a Generation Connection, both the:
- costs of Reinforcement subject to the Cost Apportionment Factors ("CAFs"); and
 - calculation of the High-Cost Project Threshold,
- were assessed based on costs of Reinforcement at the Voltage Level of the Point of Connection and one Voltage Level above.
- 1.2 The Access SCR Decision changed apportioned costs of Reinforcement such that, for a Generation Connection, the CAFs apply at the Voltage Level of the Point of Connection only.
- 1.3 [DCP 422 "Access SCR Clarifications and Corrections"](#) amended Paragraph 1.16 of Schedule 22 ("Common Connection Charging Methodology") to clarify that, if (for a Generation Connection only) the costs of Reinforcement at the same Voltage Level as the Point of Connection exceed the High-Cost Project Threshold, the costs of Reinforcement subject to the CAFs shall be applied up to and including the High-Cost Project Threshold only.
- 1.4 For example, if the High-Cost Project Threshold was £200k and the costs of Reinforcement at the Voltage Level of the Point of Connection were £300k, the Customer would be required to pay £100k (the amount in excess of the High-Cost Project Threshold) plus a contribution to the £200k per the CAFs.² If the Reinforcement related to a single asset and CAF only (e.g. replacement of an overhead line for thermal constraints only), the cost of Reinforcement to be used in the CAF shall simply be £200k rather than £300k. This clarity provided by DCP 422 mitigates the risk of double-charging costs of Reinforcement.
- 1.5 However, if the Reinforcement related to multiple assets and/or CAFs – say separate costs of £250k and £50k respectively – it is unclear how the Company should CAF the "capped" value of £200k per the example in paragraph 1.4.

Why?

- 1.6 Example 13 of Schedule 22 demonstrates Reinforcement charging principles for a Generation Connection where both the Security CAF and Fault Level CAF are applicable. In the example, the High-Cost Project Threshold is £1.2m (6,000kW x £200) and the costs of Reinforcement total £820k; therefore the High-Cost Project Threshold is not exceeded.
- 1.7 However, assuming the Required Capacity in example 13 was (e.g.) 3,000kW and all other assumptions (including costs) remained unchanged, the High-Cost Project Threshold would be £600k

¹ https://www.ofgem.gov.uk/sites/default/files/2022-05/Access_SCR_Final_Decision.pdf

² Examples given for the purpose of this document intentionally exclude other costs such as Extension Assets.

(3,000kW x £200) and therefore the costs of Reinforcement of £820k would be £220k higher than the HCPT Schedule 22 does not clarify how the CAF should apply in this instance.

1.8 Further, example 30 of Schedule 22 demonstrates Reinforcement charging principles for a Generation Connection where the High-Cost Project Threshold is exceeded and costs of Reinforcement at the Voltage Level of the Point of Connection need to be apportioned. However, in this example the High-Cost Project Threshold is only exceeded due to costs of Reinforcement at the Voltage Level above the Point of Connection i.e. the full costs of Reinforcement at the Voltage Level of the Point of Connection need to be apportioned. In addition, there is only one cost of Reinforcement at the Voltage Level of the Point of Connection to be apportioned.

1.9 Whilst the scenario set out in paragraph 1.7 could have applied prior to the implementation of the Access SCR Decision, as the CAF methodology and High-Cost Project Threshold both treated costs of Reinforcement consistently (i.e. at both the Voltage Level of the Point of Connection and the Voltage Level above), it is understood to have never manifested. Whilst it is unclear how the Company must CAF capped costs of Reinforcement, it is also expected that the need to do so will be a relatively rare occurrence going forward too (but it is known to have occurred).

How?

1.10 There are several options to apply a CAF to capped costs of Reinforcement to ensure no double-charging by amending the CAF methodology. Some of these options have been considered in the development of this CP. Options considered by the Proposer before being assessed by the Working Group (which are not mutually exclusive) to apply adjustments to the CAFs include capping costs of Reinforcement:

- only where that cost exceeds the High-Cost Project Threshold;
- on a proportionate basis to the aggregated costs of Reinforcement to be apportioned;
- on a proportionate basis to the unadjusted cost apportioned amounts to the Customer; and
- only to the maximum costs of Reinforcement to be apportioned.

1.11 Attachment 2 to this Change Report sets out several modelled approaches considered by the Working Group for the purposes of the Consultation, based on several examples.³

1.12 The proposed approach set out in the CP was to amend the CAF methodology to cap costs of Reinforcement proportional to the unadjusted CAF contribution from the Customer. In the CP, the Proposer's view was that this approach retains the proportionality of the Customer's contribution to the costs of Reinforcement, and based on the modelled illustrative scenarios (based on illustrative costs and apportionment assumptions, to demonstrate nuances only), generally resulted in the cheapest post-adjustment cost to the Customer.

³ Costs and other assumptions used are illustrative and used to demonstrate nuances only.

- 1.13 Further, and to prevent a situation where the Customer contribution may be a negative value (i.e. a payment to the Customer)⁴ a hierarchical approach was included where the methodology defaults to capping costs of Reinforcement on a simple proportionate basis.
- 1.14 However, the Proposer informed the Working Group that, since submission of the CP, their preferred solution had changed; preferring instead to adjust the costs of Reinforcement on a proportionate basis to the aggregated costs of Reinforcement to be apportioned. The Proposer explained that a “live” situation had occurred where Schedule 22 was clear on the policy position to not apportion costs of Reinforcement at the Voltage Level of the Point of Connection for a Generation Connection, but not how to satisfy this obligation. To satisfy the policy requirement, and to both (i) improve understanding of the need, and (ii) embed an intermediate workaround solution, cost proportionality was the favoured approach.
- 1.15 The Proposer’s view is that a simple approach is, in hindsight, a more appropriate solution to ensure consistent application, and that is easily understood by the DNO/IDNO Party and Customer. Further, whilst it may only be theoretically possible, the Proposer considered that the potential need to default to this approach as part of a hierarchical methodology, supported the benefits of a simple pro rata solution by default without a need for a tiered approach.

2 Governance

Justification for Part 1 Matter

- 2.1 This CP will impact the Connection Charge and subject to a policy decision that was not set out in the Access SCR Decision, and therefore should be a Part 1 Matter.

Requested Next Steps

- 2.2 The Panel recommends that this CP should be issued to Parties for Voting.

⁴ The illustrative modelling scenarios identified this as being a possibility.

3 Why Change?

Background of DCP 425

- 3.1 As set out in paragraphs 1.6 to 1.9, unless the relevant legal text is changed, there risks a situation arising that Schedule 22 does not address.

4 DCP 425 Working Group Initial Assessment and Consultation

- 4.1 The DCUSA Panel established a Working Group to assess this CP. This Working Group consists of Supplier, DNO and Generator representatives. Meetings were held in open session and the minutes and papers of each meeting are available on the DCUSA website at www.dcusa.co.uk.

Consideration of options

- 4.2 The Working Group considered the options set out by the Proposer in the CP. The Working Group identified no additional options to be considered as part of this Consultation.
- 4.3 The options represent varying approaches to reduce the costs of Reinforcement to be apportioned by a portion the “excess”, to ensure that an aggregate amount no greater than the High-Cost Project Threshold is subject to the CAFs.
- 4.4 For the avoidance of doubt, the “excess” represents the amount that the aggregate costs of Reinforcement at the Voltage Level of the Point of Connection exceed the High-Cost Project Threshold. For example, as set out in paragraph 1.4, cost of Reinforcement of £300k compared to a High-Cost Project Threshold of £200k includes an “excess” of £100k; and where only £200k should be cost apportioned.
- 4.5 The options and examples below are all based around a scenario where (i) the High-Cost Project Threshold is £600k; (ii) it is a Generation Connection; and (iii) all costs of Reinforcement are at the Voltage Level of the Point of Connection.

Option 1: Cap Reinforcement where HCPT exceeded only (subject to zero floor)

- 4.6 This option uses a linear four-tiered approach.
- 4.7 If a single CAF applies, the cost of Reinforcement to be apportioned shall equal the High-Cost Project Threshold. For example, if the only cost of Reinforcement was £700k, £600k (equivalent to the High-Cost Project Threshold) would be subject to the relevant CAF instead (see also scenarios 5-6 of option 1 in Attachment 2).
- 4.8 If multiple CAFs apply but there is only one cost of Reinforcement that exceeds the High-Cost Project Threshold in isolation, that cost of Reinforcement is reduced by the “excess”. For example (see also Table 1 below), if there were costs of Reinforcement of £20k and £800k (so £820k in total), the £220k “excess” should be subtracted from the £800k; meaning £580k would be subject to the relevant CAF (see also scenarios 1-2 of option 1 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|-----------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £20k | FALSE | - | - | - | £20k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 100.0% | (£220k) | £580k |
| Security CAF_2 | - | FALSE | - | - | - | - |
| Fault Level CAF_2 | - | FALSE | - | - | - | - |
| Total | £820k | | £800k | 100.0% | (£220k) | £600k |

Table 1: Option 1, example 2

- 4.9 If multiple CAFs apply and both (i) there are multiple costs of Reinforcement that exceed the High-Cost Project Threshold in isolation, and (ii) the aggregate value of those costs is greater than or equal to the “excess”, the “excess” is subtracted proportionally from those costs. For example (see also Table 2 below), if there were costs of Reinforcement of £20k, £800k and £700k (so £1,520k in total), and as the total of the costs that exceed the High-Cost Project Threshold (£1,500k) is greater than or equal to the £920k “excess”, the “excess” should be subtracted from the £800k and £700k only. The cost of Reinforcement of £800k and £700k are around 53% and 47% of the £1,500k respectively. Therefore the “excess” should be subtracted from those costs of Reinforcement based on those percentages (see also scenarios 4, 7-8 and 10-12 of option 1 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|-----------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £20k | FALSE | - | - | - | £20k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 53.3% | (£491k) | £309k |
| Security CAF_2 | - | FALSE | - | - | - | - |
| Fault Level CAF_2 | £700k | TRUE | £700k | 46.7% | (£429k) | £271k |
| Total | £1,520k | | £1,500k | 100.0% | (£920k) | £600k |

Table 2: Option 1, example 3

- 4.10 Finally, there are two circumstances that may require that the “excess” be subtracted from each cost of Reinforcement proportional to the total cost of Reinforcement. Firstly, if no costs of Reinforcement exceed the High-Cost Project Threshold in isolation but do in aggregate. Secondly, if multiple CAFs apply and both (i) there are multiple costs of Reinforcement that exceed the High-Cost Project Threshold in isolation, and (ii) the aggregate value of those costs is less than the “excess”.
- 4.11 In relation to the first circumstance identified in paragraph 4.10: for example (see also Table 3 below) if there were costs of Reinforcement of £100k and £550k (so £650k in total), and as neither exceed the High-Cost Project Threshold but do in total, the “excess” (£50k) should be subtracted from all costs of Reinforcement. The “excess” is subtracted proportionate to the cost of Reinforcement to the total cost of Reinforcement i.e. 15% and 85% for the respective costs (see also scenarios 3 and 9 of option 1 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|-----------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £100k | FALSE | £100k | 15.4% | (£8k) | £92k |
| Fault Level CAF_1 | £550k | FALSE | £550k | 84.6% | (£42k) | £508k |
| Security CAF_2 | - | FALSE | - | - | - | - |
| Fault Level CAF_2 | - | FALSE | - | - | - | - |
| Total | £650k | | £650k | 100.0% | (£50k) | £600k |

Table 3: Option 1, example 4

4.12 In relation to the second circumstance identified in paragraph 4.10: for example if there were costs of Reinforcement of £20k, £800k, £600k, and £800k (so £2,220k in total), and as the total of the costs that exceed the High-Cost Project Threshold (£1,600k) is less than the £1,620k “excess”, the “excess” should be subtracted from all costs of Reinforcement – otherwise the two £800k costs of Reinforcement would be a negative value after being reduced by the “excess” (see Table 4 below).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|-----------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £20k | FALSE | - | - | - | £20k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 50.0% | (£810k) | (£10k) |
| Security CAF_2 | £600k | FALSE | - | - | - | £600k |
| Fault Level CAF_2 | £800k | TRUE | £800k | 50.0% | (£810k) | (£10k) |
| Total | £2,220k | | £1,600k | 100.0% | (£1,620k) | £600k |

Table 4: Option 1, example 5 (negative cost)

4.13 The “excess” is therefore subtracted proportionate to the cost of Reinforcement to the total cost of Reinforcement at the Voltage Level of the Point of Connection (see Table 5 below) i.e. 1%, 36%, 27%, and 36% for the respective costs (see also scenario 13 of option 1 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|-----------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £20k | FALSE | £20k | 0.9% | (£15k) | £5k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 36.0% | (£584k) | £216k |
| Security CAF_2 | £600k | FALSE | £600k | 27.0% | (£438k) | £162k |
| Fault Level CAF_2 | £800k | TRUE | £800k | 36.0% | (£584k) | £216k |
| Total | £2,220k | | £2,220k | 100.0% | (£1,620k) | £600k |

Table 5: Option 1, example 5 (zero floor)

Option 2: Cap Reinforcement for a single HCPT exceedance otherwise cap all proportionally.

4.14 This option uses a linear three-tiered approach and is similar to option 1; however, unlike option 1, where there are multiple costs of Reinforcement there are no costs that are not adjusted.

4.15 If a single CAF applies, the cost of Reinforcement to be apportioned shall equal the High-Cost Project Threshold. For example, if the only cost of Reinforcement was £700k, £600k (equivalent High-Cost Project Threshold) would be subject to the relevant CAF (see also scenarios 5-6 of option 2 in Attachment 2).

- 4.16 If multiple CAFs apply but there is only one cost of Reinforcement that exceeds the High-Cost Project Threshold in isolation, that cost of Reinforcement is reduced by the “excess”. For example (see also Table 6 below), if there were costs of Reinforcement of £20k and £800k (so £820k in total), the £220k “excess” should be subtracted from the £800k; meaning £580k would be subject to the relevant CAF (see also scenarios 1-2 of option 2 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|---|-----------------------|--------------|------------------------------|---------------|--------------------|--------------------------------|
| Security CAF_1 | £20k | FALSE | - | - | - | £20k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 100.0% | (£220k) | £580k |
| Security CAF_2 | - | FALSE | - | - | - | - |
| Fault Level CAF_2 | - | FALSE | - | - | - | - |
| Total | £820k | | £800k | 100.0% | (£220k) | £600k |

Table 6: Option 2, example 2

- 4.17 Otherwise, the “excess” should be subtracted from each cost of Reinforcement proportional to the total cost of Reinforcement. For example (see also Table 7 below) if there were costs of Reinforcement of £20k, £800k, £600k, and £800k (so £2,220k in total), and as more than one exceeds the High-Cost Project Threshold, the “excess” should be subtracted from all costs of Reinforcement. The “excess” is subtracted proportionate to the cost of Reinforcement to the total cost of Reinforcement i.e. 1%, 36%, 27%, and 36% for the respective costs (see also scenarios 3-4 and 7-13 of option 2 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|---|-----------------------|--------------|------------------------------|---------------|--------------------|--------------------------------|
| Security CAF_1 | £20k | FALSE | £20k | 0.9% | (£15k) | £5k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 36.0% | (£584k) | £216k |
| Security CAF_2 | £600k | FALSE | £600k | 27.0% | (£438k) | £162k |
| Fault Level CAF_2 | £800k | TRUE | £800k | 36.0% | (£584k) | £216k |
| Total | £2,220k | | £2,220k | 100.0% | (£1,620k) | £600k |

Table 7: Option 2, example 3

Option 3: Cap all Reinforcement proportionally (the Proposer’s preferred option)

- 4.18 The “excess” should always be subtracted from each cost of Reinforcement proportional to the total cost of Reinforcement (see all scenarios of option 3 in Attachment 2).

Option 4: Cap maximum Reinforcement (subject to zero floor)

- 4.19 This option uses a non-linear multi-tiered approach regardless of the number of CAFs to be applied and introduces a concept of a “residual excess”.
- 4.20 The “residual excess” represents the difference between the “excess” and the aggregate value of maximum costs of Reinforcement, and only where the “excess” is greater. For example, if there are costs of Reinforcement of £700k and £800k (so £1,500k in total) the “excess” would be £900k. As the “excess” is greater than the maximum cost of Reinforcement (£800k), there is a “residual excess” of £100k.

- 4.21 If there is a single occurrence of the maximum cost of Reinforcement, providing that cost of Reinforcement is greater than or equal to the “excess”, the “excess” is subtracted from that maximum cost of Reinforcement. For example (see also Table 8 below), if there were costs of Reinforcement of £20k and £800k (so £820k in total), and as the maximum cost of Reinforcement (i.e. £800k) is greater than or equal to the “excess” (£220k), the “excess” should be subtracted from the £800k only.

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Max cost? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|--------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £20k | FALSE | - | - | - | £20k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 100.0% | (£220k) | £580k |
| Security CAF_2 | - | FALSE | - | - | - | - |
| Fault Level CAF_2 | - | FALSE | - | - | - | - |
| Total | £820k | | £800k | 100.0% | (£220k) | £600k |

Table 8: Option 4, example 1

- 4.22 Further, whilst in the example above there is an instance of a cost of Reinforcement exceeding the High-Cost Project Threshold, the principle applies if the High-Cost Project Threshold is only exceeded in aggregate (and not therefore for any cost of Reinforcement in isolation). For example (see also Table 9 below), if there were costs of Reinforcement of £100k, £400k, £50k, and £300k (so £850k in total), and as the maximum cost of Reinforcement (i.e. £400k) is greater than or equal to the “excess” (£250k), the “excess” should be subtracted from the £400k only (see also scenarios 1-3, 5-6 and 9 of option 4 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Max cost? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|--------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £100k | FALSE | - | - | - | £100k |
| Fault Level CAF_1 | £400k | TRUE | £400k | 100.0% | (£250k) | £150k |
| Security CAF_2 | £50k | FALSE | - | - | - | £50k |
| Fault Level CAF_2 | £300k | FALSE | - | - | - | £300k |
| Total | £850k | | £400k | 100.0% | (£250k) | £600k |

Table 9: Option 4, example 2

- 4.23 If there are multiple instances of the maximum cost of Reinforcement, providing the aggregate cost of that Reinforcement is greater than or equal to the “excess”, the “excess” is subtracted evenly from those maximum cost of Reinforcement. For example (see also Table 10 below), if there were costs of Reinforcement of £700k, £300k, and £700k (so £1,700k in total), and as the aggregate value of the maximum costs of Reinforcement (i.e. two instances of £700k so £1,400k) is greater than or equal to the “excess” (£1,100k), the “excess” should be subtracted from the two instances of £700k only i.e. reduced by £550k each, being 50% of the “excess” (see also scenarios 8 and 11-12 of option 4 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Max cost? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|--------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £700k | TRUE | £700k | 50.0% | (£550k) | £150k |
| Fault Level CAF_1 | £300k | FALSE | - | - | - | £300k |
| Security CAF_2 | £700k | TRUE | £700k | 50.0% | (£550k) | £150k |
| Fault Level CAF_2 | - | FALSE | - | - | - | - |
| Total | £1,700k | | £1,400k | 100.0% | (£1,100k) | £600k |

Table 10: Option 4, example 3

- 4.24 If a “residual excess” occurs: (i) the adjusted costs of Reinforcement (for single or multiple instances of maximum costs of Reinforcement) are floored at zero (otherwise the costs of Reinforcement would be a negative value after being reduced by the “excess”), and (ii) the “residual excess” is separately subtracted from other costs of Reinforcement based on one of two approaches.
- 4.25 In relation to the “residual excess”: firstly, it is subtracted proportionally from costs of Reinforcement that are (i) less than the maximum and (ii) greater than the High-Cost Project Threshold; secondly, if no other costs of Reinforcement exceed the High-Cost Project Threshold, it is subtracted proportionally from all other costs of Reinforcement.
- 4.26 In relation to the first approach to deal with a “residual excess” (as identified in paragraph 4.24): for example if there were costs of Reinforcement of £20k, £800k, and £700k (so £1,520k in total), and as the “excess” (£920k) is greater than the aggregate value of the maximum cost of Reinforcement (£800k), the maximum cost of Reinforcement is reduced by the “excess” but floored at zero, leaving a £120k “residual excess”. Otherwise, the maximum cost of Reinforcement to be apportioned would be a negative value after being reduced by the “excess” (see Table 11 below).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Max cost? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|--|--------------------------|--------------|------------------------------------|---------------|-----------------------|--------------------------------------|
| Security CAF_1 | £20k | FALSE | - | - | - | £20k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 100.0% | (£920k) | (£120k) |
| Security CAF_2 | - | FALSE | - | - | - | - |
| Fault Level CAF_2 | £700k | FALSE | - | - | - | £700k |
| Total | £1,520k | | £800k | 100.0% | (£920k) | £600k |

Table 11: Option 4, example 4 (negative cost)

- 4.27 As the £700k cost of Reinforcement exceeds the High-Cost Project Threshold, the “residual excess” of £120k is subtracted from that cost of Reinforcement i.e. £580k is subject to the relevant CAF. When expressed as a percentage reduction of the “excess” (see **Table 12** below), the £800k cost of Reinforcement is therefore reduced by around 87% of the £920k (taking the cost of Reinforcement to zero) and the £700k cost of Reinforcement is reduced by around 13% of the £920k (see also scenarios 4, 7 and 10 of option 4 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|---|-----------------------|--------------|------------------------------|---------------|--------------------|--------------------------------|
| Security CAF_1 | £20k | FALSE | n/a | - | - | £20k |
| Fault Level CAF_1 | £800k | TRUE | n/a | 87.0% | (£800k) | - |
| Security CAF_2 | - | FALSE | n/a | - | - | - |
| Fault Level CAF_2 | £700k | TRUE | n/a | 13.0% | (£120k) | £580k |
| Total | £1,520k | | - | 100.0% | (£920k) | £600k |

Table 12: Option 4, example 4 (zero floor)

4.28 In relation to the second approach to deal with a “residual excess” (as identified in paragraph 4.24): for example if there were costs of Reinforcement of £20k, £800k, £600k, and £800k (so £2,220k in total), and as the “excess” (£1,620k) is greater than the aggregate value of the maximum cost of Reinforcement (i.e. two instances of £800k so £1,600k), the maximum cost of Reinforcement is reduced by the “excess” but floored at zero, leaving a £20k “residual excess”. Otherwise, the maximum costs of Reinforcement to be apportioned would be a negative value after being reduced by the “excess” (see Table 13 below).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Max cost? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|---|-----------------------|-----------|------------------------------|---------------|--------------------|--------------------------------|
| Security CAF_1 | £20k | FALSE | - | - | - | £20k |
| Fault Level CAF_1 | £800k | TRUE | £800k | 50.0% | (£810k) | (£10k) |
| Security CAF_2 | £600k | FALSE | - | - | - | £600k |
| Fault Level CAF_2 | £800k | TRUE | £800k | 50.0% | (£810k) | (£10k) |
| Total | £2,220k | | £1,600k | 100.0% | (£1,620k) | £600k |

Table 13: Option 4, example 5 (negative cost)

4.29 As the £20k and £600k costs of Reinforcement do not exceed the High-Cost Project Threshold, the “residual excess” is subtracted from both of those costs of Reinforcement in proportion to the aggregate value of those costs of Reinforcement (i.e. £20k and £600k relative to £620k, so around 3% and 97% respectively). When expressed as a percentage reduction of the “excess” (see Table 14 below), the £20k cost of Reinforcement is therefore reduced by less than 0% (0.04%) of the £1,620k, the £800k costs of Reinforcement are both reduced by around 49% of the £1,620k (taking the costs of Reinforcement to zero), and the £600k cost of Reinforcement is reduced by around 1% of the £1,620k (see also scenario 13 of option 4 in Attachment 2).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | Exceed HCPT? | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|---|-----------------------|--------------|------------------------------|---------------|--------------------|--------------------------------|
| Security CAF_1 | £20k | FALSE | n/a | 0.0% | (£1k) | £19k |
| Fault Level CAF_1 | £800k | TRUE | n/a | 49.4% | (£800k) | - |
| Security CAF_2 | £600k | FALSE | n/a | 1.2% | (£19k) | £581k |
| Fault Level CAF_2 | £800k | TRUE | n/a | 49.4% | (£800k) | - |
| Total | £2,220k | | - | 100.0% | (£1,620k) | £600k |

Table 14: Option 4, example 5 (zero floor)

**Option 5: Cap Reinforcement proportional to unadjusted Customer CAF contribution
(subject to zero floor)**

- 4.30 This option reduces the cost of Reinforcement to be apportioned proportional to the Customer's unadjusted contribution to the cost of Reinforcement, providing the adjusted cost of Reinforcement is greater than or equal to zero.
- 4.31 The unadjusted cost of Reinforcement is multiplied by the relevant CAF, and the relative proportion of Customer contributions to those unadjusted costs of Reinforcement is then used to determine the proportion of the "excess" to subtract from that cost of Reinforcement. For example (see also Table 15 below), if there were costs of Reinforcement of £100k, £400k, £50k, and £300k (so £850k in total), to determine the proportionate reduction of the "excess" (£250k), the respective CAFs (39.5%, 12.0%, 39.5%, and 12.0%) are applied to each cost of Reinforcement resulting in a total Customer contribution of £143k. For each of the £100k, £400k, £50k, and £300k costs of Reinforcement, the proportion of that £143k would be around 28%, 34%, 14%, and 25% respectively, equating to reductions of the "excess" of around £69k, £84k, £34k, and £63k respectively. The cost of Reinforcement to be apportioned is the unadjusted cost of Reinforcement plus the proportionate "excess" reduction, unless this value is less than zero: which is not the case in this example (see also scenarios 1-6, 8-9, and 11-12 of option 5 in Attachment 2).

| Reinforcement asset | Cost of Reinforcement | CAF % | Customer contribution | | "Excess" reduction | Adjusted cost of Reinforcement |
|---------------------|-----------------------|-------|-----------------------|--------------|--------------------|--------------------------------|
| Security CAF_1 | £100k | 39.5% | £39k | 27.6% | (£69k) | £31k |
| Fault Level CAF_1 | £400k | 12.0% | £48k | 33.5% | (£84k) | £316k |
| Security CAF_2 | £50k | 39.5% | £20k | 13.8% | (£34k) | £16k |
| Fault Level CAF_2 | £300k | 12.0% | £36k | 25.1% | (£63k) | £237k |
| Total | £850k | | £143k | 32.8% | (£250k) | £600k |

Table 15: Option 5, example 1

- 4.32 As a further example (see also Table 16 below), if there were costs of Reinforcement of £20k, £800k, £600k, and £800k (so £2,220k in total), to determine the proportionate reduction of the "excess" (£1,620k), the respective CAFs (39.5%, 12.0%, 39.5%, and 12.0%) are applied to each cost of Reinforcement resulting in a total Customer contribution of £437k. For each of the £20k, £800k, £600k, and £800k costs of Reinforcement, the proportion of that £437k would be around 2%, 22%, 54%, and 22% respectively, equating to reductions of the "excess" of around £29k, £356k, £879k, and £356k respectively. The cost of Reinforcement to be apportioned is the unadjusted cost of Reinforcement plus the proportionate "excess" reduction, unless this value is less than zero: which is the case in this example (see also scenarios 7, 10, and 13 of option 5 in Attachment 2).

| Reinforcement asset | Cost of Reinforcement | CAF % | Customer contribution | | "Excess" reduction | Adjusted cost of Reinforcement |
|---------------------|-----------------------|-------|-----------------------|---------------|--------------------|--------------------------------|
| Security CAF_1 | £20k | 39.5% | £8k | 1.8% | (£29k) | (£9k) |
| Fault Level CAF_1 | £800k | 12.0% | £96k | 22.0% | (£356k) | £444k |
| Security CAF_2 | £600k | 39.5% | £237k | 54.2% | (£879k) | (£279k) |
| Fault Level CAF_2 | £800k | 12.0% | £96k | 22.0% | (£356k) | £444k |
| Total | £2,220k | | £437k | 100.0% | (£1,620k) | £600k |

Table 16: Option 5, example 2 (negative cost)

- 4.33 In the above example, two costs of Reinforcement to be apportioned would be less than zero e.g. the £600k cost of Reinforcement would (unadjusted) represent around 54% of the Customer contribution, and as 54% of the "excess" (around £879k) is greater than the cost of Reinforcement, the outcome is a negative value. As a result, this option defaults to apportioning the "excess" reduction from each cost of Reinforcement proportional to the total cost of Reinforcement i.e. around 1%, 36%, 27%, and 36% for the respective costs (see Table 17 below).

| Reinforcement asset (POC Voltage Level) | Cost of Reinforcement | CAF % | "Excess" apportionment basis | | "Excess" reduction | Adjusted cost of Reinforcement |
|---|-----------------------|-------|------------------------------|---------------|--------------------|--------------------------------|
| Security CAF_1 | £20k | 39.5% | £20k | 0.9% | (£15k) | £5k |
| Fault Level CAF_1 | £800k | 12.0% | £800k | 36.0% | (£584k) | £216k |
| Security CAF_2 | £600k | 39.5% | £600k | 27.0% | (£438k) | £162k |
| Fault Level CAF_2 | £800k | 12.0% | £800k | 36.0% | (£584k) | £216k |
| Total | £2,220k | | £2,220k | 100.0% | (£1,620k) | £600k |

Table 17: Option 5, example 2 (zero floor)

Option 6: Cheapest for the Customer

- 4.34 This option is potentially open-ended in that it could require assessment of an exhaustive set of options to determine that which results in the lowest cost to the Customer, and which may vary subject to the scenario (i.e. one option may not always be the cheapest).
- 4.35 As such, it is questionable as to how practicable this option is given it could require calculating apportioned costs of Reinforcement under each of the five options presented in this consultation – and any others – before being able to determine the outcome.

Preferred option

- 4.36 The majority of the Working Group agreed with the Proposer that option 3 was the preferred option due to the relative simplicity, repeatability, and transparency. Other options, primarily option 6, may have significant impacts on systems and processes, for potentially little/no benefit (to the DNO/IDNO Party and/or Customer).
- 4.37 The Working Group considered an alternative approach whilst achieving the same outcome as the preferred option, by amending the CAF applied to a cost of Reinforcement rather than adjusting to cost to which the CAF is applied.
- 4.38 The Working Group agreed that such alternative approach is potentially less transparent and more complicated and would require wider changes to Schedule 22 given the existing requirement to apply the CAF methodology to "Reinforcement costs up to and including the High-Cost Project

Threshold only”. Therefore, the Working Group agreed that it is more in line with policy intent to adjust the costs of Reinforcement and not the methodology applied to those costs.

5 DCP 425 Consultations

- 5.1 The Working Group undertook a Consultation during the development of the CP.

Consultation

- 5.2 The Consultation was issued to parties on 10 November 2023. There were seven responses received to the Consultation. The Working Group’s conclusions can be found in **Attachment 3 DCP 425 Consolidated Consultation Responses**, with a summary of each shown below.

Question 1: Do you understand the intent of DCP 425?

- 5.3 All respondents understood the intent of this CP.

Question 2: Are you supportive of the principles of DCP 425? Please provide your rationale.

- 5.4 All respondents supported the intent of this CP.

Question 3: Do you agree with the Working Group’s preferred option, and why?

- 5.5 Four respondents supported the Working Group’s preference for option 3.
- 5.6 One respondent supported the principles of option 3 but believed it could be achieved via a simplified approach.
- 5.7 One respondent considered that option 3 could confuse a Customer as to what is being apportioned and why each cost of Reinforcement is reduced prior to a CAF being applied. The respondent proposed an alternative option for the Working Group to consider; which is covered further in response to Consultation question 4.
- 5.8 One respondent believed that, whilst option 3 offers a straightforward approach, it returned more inconsistent results within the examples. The respondent considered that stability of outcome across the scenarios should be a feature of the chosen scenario – and on that basis preferred option 5. The respondent proposed that the Working Group should revisit the options to explore whether a solution could be found that (i) has a straightforward logic (like option 3), (ii) returns stable results across all scenarios (like option 5), and (iii) avoids the need for a “zero floor” in some scenarios (like options 2 and 3).
- 5.9 The Working Group discussed this response and agreed that the perceived inconsistency was a product of the illustrative examples (set out in Attachment 2) and the use of illustrative costs designed to test the limits of each option (ultimately whether it could result in a negative cost), and which were not designed to generally represent the best (cheapest) outcome for the Customer.

- 5.10 The Proposer noted that the scenarios and assumptions were purely for illustrative purposes but covering a range of options that they believe the Working Group may have considered in due course. The Proposer stated that the outcome of each option/scenario was relative to the CAF used in conjunction with the costs of Reinforcement to which they are applied, as to whether the option/scenario resulted in a cheaper cost to the Customer than any other option. For example, applying a different CAF to different costs of Reinforcement would result in different costs to the Customer and may swing which option results in the cheapest cost to the Customer across the different illustrative scenarios. The Proposer wanted the options to demonstrate differences in principles and complexities, and accepted that presenting the impact on cost to the Customer conflated this intent.
- 5.11 The Working Group agreed that option 3 delivered the criteria set out by the respondent for a preferred option.

Question 4: Do you believe that the Working Group has sufficiently considered options, and are there any that you believe have not been considered?

- 5.12 Four respondents believed that the Working Group had sufficiently considered all the options.
- 5.13 One respondent believed an option to alter the CAF (applied to unadjusted costs of Reinforcement) to show (i) “Cost of reinforcement below the HCPT and costed to the customer”, (ii) “Cost of reinforcement below the HCPT and costed to the DNO”, and (iii) “Cost above the HCPT and costed to the customer”, should be explored more to ensure better visibility to Customers’ costings. The Working Group thoroughly assessed this option, and its views are set out in section 6 of this Change Report (see Final Option 3).
- 5.14 Another respondent proposed to amend the calculation of option 3 to use a more simplified approach. The Working Group agreed that the proposal did not alter intent nor outcome and was therefore consistent with the premise of option 3. The Proposer noted that the approach put forward by the respondent had been considered in developing the CP, but the Proposer had preferred the approach set out in the Consultation to add clarity as to how much of the “excess” was being deducted from each cost of Reinforcement; which resulted in a more complex approach,. The respondent stated that their proposed approach would be easier to explain the principles of the Common Connection Charging Methodology (“CCCM”) and brief to design engineers that use it to calculate a Connection Charge. The Working Group’s views on this option are set out in section 6 of this Change Report (and are discussed further in response to Consultation question 7).
- 5.15 One respondent stated that they had found understanding and comparing the merits of the options quite challenging, and they considered that the presentation of these could have been clearer.
- 5.16 This respondent also stated that they would have welcomed, in the Consultation, an overview of the 13 scenarios the proposer has modelled, and the reasons for choosing these. They also noted that they would also have welcomed a summary table of the six options, showing the algorithm for each, and the logic behind it, including a clearer explanation of the need for a zero floor for three of the options.

- 5.17 The Working Group discussed the responses and the Proposer reiterated that the use of scenarios, illustrative costs, and CAF assumptions were designed to test the limits of the principles set out in the options – that in turn created the complexity – and that this complexity was intentional to highlight said limitations (i.e. the need for the hierarchal approaches).

Question 5: Do you consider that the CP better facilitates the DCUSA Charging Objectives? If so, please detail which of the Charging Objectives you believe are better facilitated and provide supporting reasons. If not, please provide supporting reasons.

- 5.18 All respondents believed that charging objectives 1,2 and 3 are better facilitated by this proposal.
- 5.19 Four respondents also believed that charging objective 6 would also be better facilitated by this CP.

Question 6: Are you aware of any wider industry developments that may impact upon or be impacted by this CP?

- 5.20 No wider industry developments were identified that would be impacted upon or be impacted by this CP.

Question 7: Do you have any comments on the proposed legal text?

- 5.21 Three respondents didn't have any additional comments on the proposed legal text.
- 5.22 One respondent advised that Paragraph 1.16 of the proposed legal text could be simplified to remove the repetition and a contradiction between applying the CAFs to costs of Reinforcement (i) below and (ii) up to an including, the High-Cost Project Threshold; and where the latter is in line with the intent of the Access SCR Decision (and as clarified by DCP 422). The Working Group agreed to this change.
- 5.23 Another responder stated that In Example 32 it is not clear why the "excess", which is fully chargeable to the Customer, is not proportionately removed from the two Reinforcement elements (one cost of Reinforcement at the Voltage Level of the Point of Connection, and one at the Voltage Level above) before the CAF calculation is carried out. The respondent stated that, if the preferred option 3 is followed, then they believed the amount to be cost apportioned (in Example 32) should be £4,282 and not £45,000. The Working Group thoroughly assessed this option, and its views are set out in section 6 of this Change Report (see Final Option 4).
- 5.24 One respondent stated the proposed legal text introduces a new paragraph 1.28A however they believe this would be better included within Paragraph 1.28. They also believed the formula for calculating the reduction in cost of Reinforcement was overly complex and suggested that it is not clear how it should be applied. Further, the respondent noted that Example 33 does not demonstrate how the formula should be applied in a clear and concise manner.
- 5.25 The Working Group discussed this response in parallel with the respondent's views set out in response to Consultation question 4; that the respondent preferred a simplification of option 3 that in its view was easier to understand whilst delivering the same outcome. The Working Group

thoroughly assessed this option, and its views are set out in section 6 of this Change Report (see Final Option 2).

- 5.26 One respondent stated that for whichever option goes forward, the legal text should be amended to cross reference the relevant two new examples. The respondent also suggested that for whichever option is chosen, the formula should be set out in full to avoid the misunderstanding or misinterpretation of the relevant examples.
- 5.27 The Working Group agreed with these suggestions and amended the legal text accordingly.

Question 8: Do you have any other comments on DCP 425?

- 5.28 Six respondents did not offer any additional comments.
- 5.29 One respondent suggested an alternative process which delivers the same outcome as option 3 as covered in response to earlier questions, to simplify option 3 whilst not altering intent nor outcome. As noted in paragraph 5.25, the Working Group's views set out in section 6 of this Change Report (see Final Option 2).

6 Working Group Conclusions & Final Solution

- 6.1 After reviewing the Consultation responses the Working Group agreed that the below areas required further consideration:

- Which option(s) to take forward;
- How to present the formula/calculation; and
- Updating the new examples.

Which option(s) to take forward

- 6.2 The Working Group agreed that, out of the options presented in the Consultation, only option 3 would be taken forward based on responses to the Consultation. As noted in response to Consultation questions 4 and 7 in section 4 of this Change Report, the Working Group also considered three alternative options presented as part of the Consultation process:

1. **Final Option 1:** being option 3 as set out in the Consultation.
2. **Final Option 2:** being a simplified version of option 3 (see paragraphs 5.6 and 5.14)
3. **Final Option 3:** being an approach that changes the CAFs rather than the costs of Reinforcement to which the CAFs are applied (see paragraphs 5.7 and 5.13); and
4. **Final Option 4:** being an approach that reduces the cost of Reinforcement to which the CAFs are applied proportionally but by also taking into account costs of Reinforcement at the Voltage Level above the Point of Connection too (see paragraph 5.23).

- 6.3 The Working Group agreed that, as a minimum, one of Final Option 1 or Final Option 2 should be taken forward, and therefore prioritised considering the merits of taking forward Final Option 3 and/or Final Option 4 as well. The Working Group assessed the impact of all options on the proposed Examples 32-33 to inform its decisions: this can be found as Attachment 6.

Final Option 3: Proportional reduction including costs of Reinforcement at the Voltage Level above the Point of Connection

- 6.4 The Working Group thoroughly assessed this option following the Consultation⁵ and agreed that it resulted in the same cost to the Customer as option 3 as per the Consultation (now Final Option 1).
- 6.5 The majority of the Working Group did not support Final Option 3 and considered that it diverged from the principle set out Authority's direction to implement the Access SCR Decision that (emphasis added) "*Reinforcement costs below the [High-Cost Project] threshold should be apportioned between the customer and the DNO using the existing cost apportionment factor methodology set out in the CCCM ...*" – as the option applied the CAFs to costs of Reinforcement above the High-Cost Project Threshold too.
- 6.6 The majority of the Working Group considered that Final Option 3 was more complex than Final Options 1-2.
- 6.7 A Working Group vote was taken as to whether Final Option 3 should be taken forward, where: one Working Group member voted to take it forward, four Working Group members voted to not take it forwards (with two Working Group members from the same DCUSA Party), and there was one abstention.
- 6.8 The respondent that proposed Final Option 3 considered raising this option as an alternative solution to this CP, but ultimately decided against doing so taking into account the views of the Working Group.

Final Option 4: Proportional reduction including costs of Reinforcement at the Voltage Level above the Point of Connection

- 6.9 The Working Group discussed the respondent's comments in the Consultation and assessed the proposed option. To calculate the "excess" reduction for this option, the proportionality principles of option 3 (now Final Option 1, but also applies to Final Option 2) are extended to include the costs of Reinforcement at the Voltage Level above the Point of Connection.
- 6.10 For example, based on the proposed Example 32, the £50,000 cost of Reinforcement at the Voltage Level of the Point of Connection would be reduced by £45,718, meaning £4,282 is subject to the CAF; rather than the £45,000 per Final Options 1-2. The £45,718 reduction is determined by:
- Calculating the proportion of the cost of Reinforcement at the Voltage Level of the Point of Connection relative to the total cost of Reinforcement used to determine

⁵ As noted to in paragraphs 4.37 to 4.38, it was considered before the Consultation too.

if the High-Cost Project Threshold (i.e. the cost of Reinforcement at the Voltage Level of the Point of Connection and the Voltage Level above).

- As a result, the £50,000 cost of Reinforcement at the Voltage Level of the Point of Connection, and subject to a CAF, represents 9.5% of the total cost of Reinforcement assessed relative to the High-Cost Project Threshold; being £525,400.⁶
- The next step applies the 9.5% to the total “excess”; being £480,400 i.e. the total cost of Reinforcement at the Voltage Level of the Point of Connection and one Voltage Level above is £525,400, compared to the High-Cost Project Threshold of £45,000.⁷
- This derives a value of £45,718 and is the amount to be deducted from the cost of Reinforcement at the Voltage Level of the Point of Connection, resulting in £4,282 being subject to a CAF.⁸

6.11 Final Option 4 differs from Final Options 1-2 (and Final Option 3) where costs of Reinforcement at the Voltage Level above the Point of Connection are used other than for calculating the High-Cost Project Threshold charge to the Customer. Therefore Final Option 4 aligns with Final Options 1-2 for the proposed Example 33.

6.12 The Working Group thoroughly assessed this option following the Consultation and the majority agreed that Final Option 4 created unnecessary complexity, and fundamentally altered the approach to applying a CAF by taking into account costs of Reinforcement above the Voltage Level of the Point of Connection (in determining the cost of Reinforcement subject to the CAF, which is only relevant at the Voltage Level of the Point of Connection).

6.13 The Working Group considered two scenarios where a Customer seeking to connect to the network (i) triggered the same cost of Reinforcement at the Voltage Level of the Point of Connection of £50,000 in both scenarios, and where that was higher than the High-Cost Project Threshold of £45,000, but (ii) in scenario 2 only (being the case in the proposed Example 32) also triggered Reinforcement at the Voltage Level above the Point of Connection (with scenario 1 including no Reinforcement above the Voltage Level of the Point of Connection).

⁶ This differs to Final Options 1-2 that discounts the cost of Reinforcement above the Voltage Level of the Point of Connection as this is not subject to a CAF, therefore the £50,000 represents 100% of costs of Reinforcement to be apportioned.

⁷ This differs to Final Options 1-2 that applies the 100% (see footnote 6) to the proportion of the “excess” relating to the Voltage Level of the Point of Connection only i.e. the £5,000 (the cost of Reinforcement at the Voltage Level of the Point of Connection being £50,000 compared to the High-Cost Project Threshold of £45,000).

⁸ This differs to Final Options 1-2 that applies the CAF to the £45,000 (see footnote 7) i.e. the CAF is applied to a cost of Reinforcement at the Voltage Level of the Point of Connection that is up to and including the High-Cost Project Threshold in accordance with paragraph 1.16 of the Schedule 22.

- In scenario 1, the cost to the Customer would be the same if applying Final Options 1-2 or Final Option 4. For each option, the cost of Reinforcement of £50,000 would be reduced by £5,000 such that £45,000 was subject to a CAF.
- In scenario 2, the cost the Customer would be lower if applying Final Option 4 compared to Final Options 1-2. This is because the cost of Reinforcement at the Voltage Level above the Point of Connection reduces the cost of Reinforcement to which a CAF is applied. In the proposed Example 32, the difference is applying the CAF to £45,000 in Final Options 1-2, to £4,282 in Final Option 4.

6.14 The Working Group agreed that it was not a desired outcome that a Customer should receive a lower cost apportioned charge just because it triggers Reinforcement at the Voltage Level above the Point of Connection. The Working Group also considered that Final Option 4 would reduce the cost apportioned charge even in a scenario where the cost of Reinforcement at the Voltage Level of the Point of Connection did not exceed the High-Cost Project Threshold (i.e. the Customer may pay nothing toward Reinforcement at the Voltage Level above the Point of Connection but pay a lower cost apportioned amount towards Reinforcement at the Voltage Level of the Point of Connection).⁹

6.15 The respondent that proposed Final Option 4 considered raising this option as an alternative solution to this CP, but ultimately decided against doing so taking into account the views of the Working Group.

Final Options 1 and 2: Variances of the original option 3

6.16 The Working Group agreed that, as Final Options 1-2 are very similar, only one should be taken forward.

6.17 The Working Group agreed that Final Option 2 was simpler and therefore arguably more customer friendly, and that it did not create any additional barriers for a DNO/IDNO Party to deliver. The Proposer noted that Final Option 1 had been considered in the development of this CP and agreed that the difference was primarily simplification in implementation, whilst not altering intent not outcome.

6.18 A Working Group vote was held and ultimately it was agreed that Final Proposal 2 should be the only option taken forward in this CP. Final Option 2 delivers the intent of this CP, consistent with the principles set out by the Proposer in the preferred option 3 as per the Consultation (now Final Option 1), albeit via a simplified calculation methodology.

⁹ For example, if the cost of Reinforcement at the Voltage Level of the Point of Connection in the proposed Example 32 was £45,000 (same as the High-Cost Project Threshold), Final Options 1-2 would not reduce the cost to be apportioned whereas the Final Option 4 would continue to proportionally reduce it relative to the cost of Reinforcement at the Voltage Level above the Point of Connection (the outcome would be a cost of £3,891 would be apportioned instead).

How to present the formula/calculation

- 6.19 The Working Group agreed to amend the formula/calculation to be consistent with other examples in Schedule 22 by writing out the variables in full rather than use a set of defined terms. The Working Group believe that this approach should improve transparency and make it easier for stakeholders to understand, whilst also cross-referencing principle to the new Examples 32-33 to demonstrate practice.
- 6.20 The updated legal text with these changes included can be found within Attachment 4: DCP 425 Draft Legal Text, and a high-level summary is in section 10, Legal Text.




Update the new examples

- 6.2 The Working Group updated Examples 32-33 to include:
- The revised calculation methodology in line with Final Option 2;
 - An updated index of the examples
 - Amendments to Example 33 with the impact relative to a Required Capacity of 3MW (from 4MW, to avoid potential confusion where the “excess” was the same value as one of the costs of Reinforcement at the Voltage Level of the Point of Connection).

7 Relevant Objectives

Assessment Against the DCUSA Objectives

- 7.1 For a DCUSA CP to be approved it must be demonstrated that it better facilitates the DCUSA Objectives. There are five General Objectives and six Charging Objectives. DCP 425 will be measured against the DCUSA Charging Objectives, which are set out in the table below and including the Working Group’s views on how this CP impacts them:

| | DCUSA Charging Objectives | Identified impact |
|---|--|-------------------|
|  | 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 |
|  | 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 |
|  | 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 | None |
| <input type="checkbox"/> | 5. That compliance by each DNO Party with the Charging Methodologies facilitates compliance with the EU Internal Market Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators; and | None |
| <input checked="" type="checkbox"/> | 6. That compliance with the Charging Methodologies promotes efficiency in its own implementation and administration. | Positive |

7.2 It is the view of the Working Group that this CP will better facilitate Charging Objectives 1, 2, 3 and 6, with no impact to the others.

7.3 Charging Objective 1 will be better facilitated by ensuring that a DNO/IDNO Party can demonstrate via its charging statement the basis on which Connection Charges will be recovered – and be applied consistently – where a Generation Connection (i) triggers Reinforcement at the Voltage Level of the Point of Connection, (ii) the costs of Reinforcement at that Voltage Level exceed the High-Cost Project Threshold, and (iii) multiple CAFs are required.

7.4 Charging Objective 2 will be better facilitated by ensuring that each DNO Party applies a consistent approach.

7.5 Charging Objective 3 will be better facilitated by ensuring that the Connection Charge applicable in a situation described in paragraph 7.3 is reasonable and calculated based on an appropriate CAF methodology in such circumstances (e.g. to avoid double-recovery of costs).

7.6 Charging Objective 6 will be better facilitated by ensuring that Schedule 22 provides clarity in how to consistently calculate the Connection Charge in a situation described in paragraph 7.3

8 Impacts & Other Considerations

Impacts on other Industry Codes

8.1 N/A

BSC..... ☐ MRA..... ☐ Grid Code..... ☐ REC..... ☐
 CUSC..... ☐ SEC..... ☐ Distribution Code.. ☐ None..... ☒

Significant Code Review Impacts?

8.2 It is noted that the DESNZ and Ofgem Energy Code Review is also considering code governance in general.

Consideration of Wider Industry Impacts

8.3 The issue which this CP seeks to remedy has been discussed in the DCP 422 Working Group and at the ENA Connections Commercial Operations Group ("Connections COG").

Consumer Impacts

- 8.4 The Working Group does not consider that there are any impacts to consumers as a result of the implementation of this CP that should be highlighted within this Change Report.

Environmental Impacts

- 8.5 In accordance with DCUSA Clause 11.20.6(D), the Working Group assessed whether there would be a material impact on greenhouse gas emissions if this CP were implemented. The Working Group did not identify any material impact on greenhouse gas emissions from the implementation of this CP.

9 Implementation

- 9.1 As this CP is to remedy a known gap in Schedule 22, the Working Group believe that it should be implemented 10 working after Authority Decision.

10 Legal Text

Legal Text

- 10.1 The legal text to achieve the Working Group's preferred option can be found in Attachment 4 to this CP and relates to Schedule 22 only. The Working Group propose to include two new examples to Schedule 22, being examples 32 and 33.

Text Commentary

- 10.2 It is proposed that Paragraph 1.16 is amended to address a conflict within that paragraph to clarify that costs of Reinforcement should be apportioned "up to and including" rather than "below" the High-Cost Project Threshold.
- 10.3 It is proposed that Paragraph 1.18 sets out that the CAF methodology shall be applied to capped costs of Reinforcement by scaling down the costs of Reinforcement proportional to the total costs of Reinforcement at the Voltage Level of the Point of Connection. A formula is included to aid transparency and consistent in application.
- 10.4 In relation to the two additional examples:
- The index of examples is updated to include the new Examples 32-33.
 - Example 32 demonstrates how costs of Reinforcement should be apportioned when the High-Cost Project Threshold is exceeded at the Voltage Level of the Point of Connection and where a single asset is subject to a CAF. This is based on the existing Example 30.
 - Example 33 demonstrates how costs of Reinforcement should be apportioned when the High-Cost Project Threshold is exceeded at the Voltage Level of the Point of Connection and where multiple assets are subject to a CAF. This is based on the existing Example 13.

11 Code Specific Matters

Modelling Specification Documents

11.1 N/A

Reference Documents

11.2 N/A

12 Recommendations

Panel's Recommendation

12.1 The Panel approved this Change Report on 20 March 2024. The Panel considered that the Working Group has carried out the level of analysis required to enable Parties to understand the impact of the proposed amendment and to vote on DCP 425.

12.2 The Panel have recommended that this report is issued for Voting for a period of 15 working days and DCUSA Parties should consider whether they wish to submit views regarding this Change Proposal.

13 Attachments

- Attachment 1: DCP 425 Voting Response Form
- Attachment 2: DCP 425 Examples
- Attachment 3: DCP 425 Consultation and Industry Responses
- Attachment 4: DCP 425 Draft Legal Text
- Attachment 5: DCP 425 Change Proposal Form
- Attachment 6: DCP 425 Post-Consultation Option Assessment