

# DCP 406:

## Access SCR: Changes to CCCM

*Date raised: 06 May 2022*

*Proposer Name: Brian Hoy*

*Company Name: Electricity North West*

*Company Category: DNO*

01 – Change Proposal

02 – Consultation

03 – Change Report

04 – Change Declaration

### Purpose of Change Proposal:

The purpose of this change proposal (CP) is to implement parts of Ofgem’s Access SCR Decision in respect of the Common Connections Charging methodology (CCCM). This CP seeks to address paragraphs 12 to 15 and 17 of the Access SCR Direction.



This document is a Consultation issued to DCUSA Parties and any other interested parties in accordance with Clause 11.14 of the DCUSA seeking industry views on DCP 406 ‘Access SCR: Changes to CCCM’.

The Working Group recommends that this Change Proposal should proceed to Consultation.

Parties are invited to consider the questions set in section 10 and submit comments using the form attached as Attachment 1 to [dcusa@electralink.co.uk](mailto:dcusa@electralink.co.uk) by 05 September 2022.

The Working Group will consider the consultation responses and determine the appropriate next steps for the progression of the Change Proposal (CP).



Impacted Parties: Suppliers, CVA Registrants, DNOs and IDNOs



Impacted Clauses: Introduction of new Clause

Schedule 22 – Common Connections Charging Methodology

## Contents

<b>1 Summary</b>	<b>3</b>
<b>2 Governance</b>	<b>4</b>
<b>3 Why Change?</b>	<b>4</b>
<b>4 DCP 406 Working Group Assessment</b>	<b>6</b>
<b>5 Assessment Against the DCUSA Objectives</b>	<b>19</b>
<b>6 Impacts &amp; Other Considerations</b>	<b>20</b>
<b>7 Implementation</b>	<b>21</b>
<b>8 Legal Text</b>	<b>22</b>
<b>9 Code Specific Matters</b>	<b>23</b>
<b>10 Consultation Questions</b>	<b>23</b>
<b>11 Attachments</b>	<b>24</b>

## Timetable

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

### Change Proposal timetable

Activity	Date
Initial Assessment Report	11 May 2022
Consultation Issued to Industry Participants	12 August 2022
Change Report Approved by Panel	05 October 2022
Change Report issued for Voting	05 October 2022
Party Voting Closes	19 October 2022
Change Declaration Issued to the Authority	20 October 2022
Authority Decision	November 2022
Implementation	01 April 2023



Any questions?

Contact:

Code Administrator



DCUSA@electralink.co.uk



0207 432 3011

Proposer:

Brian Hoy



brian.hoy@enwl.co.uk



07795447817

# 1 Summary

## What?

- 1.1 On 3 May 2022 Ofgem published its final decision (the 'Access SCR Decision') and direction (the 'Access SCR Direction') to implement the Access Significant Code Review (SCR) which can be found [here](#).
- 1.2 Ofgem's work on the distribution connection charging boundary has considered whether current arrangements continue to work in the best interests of consumers – especially considering the need for increased investment associated with the electrification of heat and transport, as well as low carbon sources of generation. Ofgem has concluded that the charging arrangements no longer provide an effective signal for network users, and without change, may slow down the roll-out of low carbon technologies (LCTs) across the energy system.
- 1.3 The Access SCR Decision focuses on two main areas: changes to the connection charging boundary for demand and generation distribution network connections; and changes to better define non-firm access arrangements at distribution. Specifically, this CP seeks to implement the necessary changes to the DCUSA to deliver the obligations placed on DNOs in the Access SCR Direction with regard to changes to the connections boundary.
- 1.4 Regarding the distribution connection charging boundary, Ofgem has decided to:
  - Reduce the overall connection charge faced by those connecting to the distribution network. This includes (i) removing the contribution to wider network reinforcement for demand connections, and (ii) reducing the contribution to wider network reinforcement for generation connections.
  - Retain and strengthen existing protections for bill payers. This ensures that bill payers will be protected from cost increases associated with the most expensive types of connections. In these instances, the connecting customer will continue to be required to contribute more to the costs of reinforcement.

## Why?

- 1.5 The Access SCR Direction places an obligation on DNOs to bring forward the necessary code changes to implement the Access SCR Decision. Failure to do so may lead to DNOs breaching their licence obligations.

## How?

- 1.6 New definitions will be introduced to define a Demand Connection and a Generation Connection to reflect the different charging methodologies that will be applied.

- 1.7 A high-cost project threshold will be introduced for a Demand Connection (in addition to the existing one for a Generation Connection) that results in customers contributing to any reinforcement at the same voltage and the one above the voltage of their point of connection.
- 1.8 A draft of the revised legal text is attached (see attachment 3).
- 1.9 Further changes to the Examples are attached to illustrate the methodology (see attachment 5).

## 2 Governance

### *Justification for Part 1 and Part 2 Matter*

- 2.1 This CP is considered to be a Part 1 Matter in accordance with DCUSA Clauses 9.4.1 and 9.4.6, being:
  - 9.4.1 it is likely to have a significant impact on the interests of electricity consumers;
  - 9.4.6 it has been raised by the Authority or a DNO/IDNO Party pursuant to Clause 10.2.5, and/or the Authority has made one or more directions in relation to it in accordance with Clause 11.9A.
- 2.2 The DCUSA Panel have agreed that this CP is to be treated as an Urgent Change. It is important that this CP is submitted to Ofgem for approval by October 2022 to allow DNOs to meet the obligation placed on them in the Access SCR Direction.
- 2.3 This CP cannot be withdrawn without the Authority's consent to do so. In accordance with Clause 11.9A, the Authority may also, by direction, specify and/or amend the relevant timetable to apply to each stage of the Assessment Process.

### *Requested Next Steps*

- 2.4 Following a review of the Consultation responses, the Working Group will work to agree the final detail of the solution for DCP 406 and if appropriate progress to the Change Report phase.

## 3 Why Change?

### **Background of DCP 406**

- 3.1 As noted, this CP has been prepared in response to specific requirements set out in the Access SCR Direction, and modifications to the DCUSA in relation the CCCM to implement the changes to the connection charging boundary arrangements set out in the Access SCR Decision. Specifically, this change has been raised to address paragraphs 12 to 15 and paragraph 17 of the Access SCR Direction, which have been set out below for reference:

### **Distribution connection charge boundary<sup>1</sup>**

- 12) Reforms to distribution connection Cost Allocation rules<sup>2</sup> as defined in the Common Connection Charging Methodology (CCCM) under DCUSA Schedule 22<sup>3</sup> are explained under 'Details of our Decision' in Chapter 3 of the Access SCR Decision (Decision on the Distribution Connection Charging Boundary), specifically in the following sections:
- i) 'Definition of Demand and Generation Connections', paragraphs 3.37 – 3.42
  - ii) 'DUoS mitigations: the high-cost cap', paragraphs 3.50 – 3.67
  - iii) 'DUoS mitigations: speculative developments', paragraphs 3.68 – 3.79
- 13) The Proposal(s) must set out definitions of:
- i) Demand Connection which should encompass all connections which would be classed as a Final Demand Site for the purposes of Schedule 32 of the DCUSA, and any other terms considered necessary for purposes of connection charging.
  - ii) Generation Connection which should encompass all connections which would not be classed as a Final Demand Site for the purposes of Schedule 32 of DCUSA, including Non-Final Demand Sites, and any other terms considered necessary for purposes of connection charging.
  - iii) Generation high-cost project threshold<sup>4</sup> set at £200/kW, calculated using Reinforcement at the voltage at Point of Connection plus the voltage above, which will supersede the informal definition in DCUSA Schedule 22 Clause 1.15.
  - iv) Demand high-cost project threshold set at £1720/kVA, calculated using Reinforcement at the voltage at Point of Connection plus the voltage above.
  - v) Any additional terms considered necessary to give effect to this Direction.
- 14) The Proposal(s) should result in cost allocation for Generation Connections as follows:
- i) The costs of Reinforcement at the voltage of the Point of Connection should be apportioned between the customer and the DNO using the existing cost apportionment factor methodology set out in the CCCM<sup>5</sup>, excepting where the Generation high-cost project threshold is exceeded, or where other exceptions<sup>6</sup> apply.
  - ii) Where the Generation high-cost project threshold is exceeded, the sum of Reinforcement costs at the voltage of the Point of Connection and the voltage above in excess of the threshold should be paid in full by the customer. Reinforcement costs below the threshold should be apportioned between the customer and the

---

<sup>1</sup> Reforms set out under 'Distribution connection charge boundary' pertain to Part B of Electricity Distribution Standard Licence Condition 13A, which does not apply to IDNOs

<sup>2</sup> Informally referred to as the distribution connection charge boundary in the Access SCR Decision

<sup>3</sup> DCUSA Schedule 22 (the CCCM) is available here: <https://www.dcusa.co.uk/dcusa-document/>

<sup>4</sup> A high-cost project threshold for generation is defined for generation in DCUSA Schedule 22, Clause 1.15, and is informally referred to as a high-cost cap or HCC in the Access SCR Decision.

<sup>5</sup> The existing cost apportionment factor methodology is set out in DCUSA Schedule 22, Clause 1.23

<sup>6</sup> By way of example, but not limited to, the treatment of Speculative Developments, as outlined in paragraph 16 of the Access SCR Direction.

*DNO using the existing cost apportionment factor methodology set out in the CCCM, including where these costs are at the voltage above the Point of Connection.*

- iii) For the avoidance of doubt, Reinforcement costs at one or more voltages above the Point of Connection should be paid in full by the DNO, and the cost of Extension Assets will continue to be paid in full by the connecting customer.*
- iv) The above cost allocations will be superseded where exceptions apply.*
- 15) *The Proposal(s) should result in cost allocation for Demand Connections as follows:*
  - i) The cost of Reinforcement should be paid in full by the DNO, excepting where the Demand high-cost project threshold is exceeded, or where other exceptions<sup>18</sup> apply.*
  - ii) Where the Demand high-cost project threshold is exceeded, the sum of Reinforcement costs at the voltage of the Point of Connection and the voltage above in excess of the threshold should be paid in full by the customer. Reinforcement costs below the threshold will be paid in full by the DNO, including where these costs are at the voltage above the Point of Connection.*
  - iii) For the avoidance of doubt, the cost of Extension Assets will continue to be paid in full by connecting customers.*
  - iv) The above cost allocations will be superseded where exceptions apply.*
- 17) *The Proposal(s) should ensure that:*
  - i) Terms are reflected throughout Schedule 22 (the CCCM) of the DCUSA, including worked examples.*
  - ii) For the avoidance of doubt, the following terms will continue to reflect their current purpose under the new connection charging boundaries:*
    - a) Three phase connections*
    - b) The Minimum Scheme*
    - c) An Enhanced Scheme*
    - d) Point of Connection*

3.2 Failure to develop these proposals and implement associated change by 01 April 2023 will result in failure to implement the Access SCR Decision, and in doing so could result in DNOs being in breach of the distribution licence.

**Question 1 Do you understand the intent of DCP 406?**

**Question 2 Are you supportive of the principles of DCP 406?**

## 4 DCP 406 Working Group Assessment

4.1 The DCUSA Panel established a Working Group to assess DCP 406. This Working Group consists of Supplier, DNO, IDNO representatives and other interested industry participants. Meetings were held in open session and the minutes and papers of each meeting are available on the DCUSA website – [www.dcusa.co.uk](http://www.dcusa.co.uk).

## Introduction

4.2 The Working Group met on a weekly basis to review the Access SCR Decision and Access SCR Direction relating to changes that are needed to the CCCM. Ofgem stated that the CP must set out the definitions of:

- i) Demand Connection which should encompass all connections which would be classed as a Final Demand Site for the purposes of Schedule 32 of the DCUSA, and any other terms considered necessary for purposes of connection charging.
- ii) Generation Connection which should encompass all connections which would not be classed as a Final Demand Site for the purposes of Schedule 32 of DCUSA, including Non-Final Demand Sites, and any other terms considered necessary for purposes of connection charging.
- iii) Generation high-cost project threshold set at £200/kW, calculated using Reinforcement at the voltage at Point of Connection plus the voltage above, which will supersede the informal definition in DCUSA Schedule 22 Clause 1.15.
- iv) Demand high-cost project threshold set at £1720/kVA, calculated using Reinforcement at the voltage at Point of Connection plus the voltage above.
- v) Any additional terms considered necessary to give effect to this Direction.
- vi) The costs of Reinforcement at the voltage of the Point of Connection should be apportioned between the customer and the DNO using the existing cost apportionment factor methodology set out in the CCCM, excepting where the Generation high-cost project threshold is exceeded, or where other exceptions apply.
- vii) Where the Generation high-cost project threshold is exceeded, the sum of Reinforcement costs at the voltage of the Point of Connection and the voltage above in excess of the threshold should be paid in full by the customer. Reinforcement costs below the threshold should be apportioned between the customer and the DNO using the existing cost apportionment factor methodology set out in the CCCM at the Point of Connection only, in line
- viii) For the avoidance of doubt, Reinforcement costs at one or more voltages above the Point of Connection should be paid in full by the DNO, and the cost of Extension Assets will continue to be paid in full by the connecting customer.
- viii) The above cost allocations will be superseded where exceptions apply.

4.3 Ofgem also stated that the proposal must ensure that the Terms are reflected throughout Schedule 22 (the CCCM) of the DCUSA, including worked examples.

4.4 During the Working Group meetings, members agreed that the best approach to developing the solution would be to break it down into four key areas:

1. Definitions of Demand Connection/Generation Connection
2. High-cost project threshold drafting
3. Drafting of a proposed new Exception

#### 4. CCCM Examples of a Demand Connection and a Generation Connection

- 4.5 This Consultation will provide further details of the four key areas around the discussions held and the proposed solutions for each of the relevant sections below.

### Definitions of Demand Connection/Generation Connection

#### Alignment with the TCR

- 4.6 The Access SCR Decision specifies alignment of connection charging for a Demand Connection and Generation Connection to the defined terms Final Demand Site and Non-Final Demand Site<sup>7</sup> respectively. These terms were developed to implement Ofgem's Targeted Charging Review (TCR).
- 4.7 A Non-Final Demand Site is essentially a site (as identified by a single bilateral connection agreement) which consumes electricity **only** for the purposes of generating and exporting or storing electricity, which must have both a registered import and export Meter Point Administration Number (MPAN). This does allow for ancillary load, such as heating and lighting, to be used and deemed to be for the purposes of generating or storage but this needs to be certified to meet the criteria of Non-Final Demand. A Non-Final Demand Site must 'certify' that it meets the criteria in Schedule 32 to the DNO/IDNO Party, and therefore effectively has to 'opt in'. The benefit to the generator of opting in is that they do not have to pay 'residual' Distribution Use of System (DUoS) charges in relation to its import (as it is solely for the purposes of generation or storage).
- 4.8 A Final Demand Site is essentially a site where **any** electricity is consumed other than for the purposes of generating or storing electricity. Any such demand is referred to as Final Demand, as defined in the Schedule 32 and aligned to the TCR.
- 4.9 A Final Demand Site is ultimately defined as anything which is not a Non-Final Demand Site. As noted a Non-Final Demand Site must 'certify' that it is a Non-Final Demand Site to the DNO/IDNO Party; therefore a generator may not provide certification and therefore would be classed as a Final Demand Site by default. This leads to the situation where the generator can choose to be either a Non-Final Demand Site (by opting in to avoid the residual charges) or a Final Demand Site (by choosing to not opt in and accepting the residual charges). A generator that does not opt in would thereby benefit from the reduced connection charges associated with a shallow rather than shallower connections boundary, albeit would face higher enduring charges for use of the network.

---

<sup>7</sup> As defined in DCUSA Schedule 32 'Residual Charging Bands' ('Schedule 32').

### Co-located generation

- 4.10 The Working Group agreed that it is clear in the Access SCR Decision that, where the site has been classified as a Final Demand Site, connections to that site should be subject to a 'shallow boundary' i.e. where the customer pays no reinforcement (subject to the high-cost project threshold). The policy intent set out in paragraph 3.37 of the Access SCR Decision refers to "a site whose primary purpose for a connection to the network is to consume other than for the purposes of generation or export onto the electricity network should be charged under a shallow boundary"
- 4.11 This policy position suggests that a Final Demand Site connecting generation should not pay any reinforcement, even if caused by the connection of the generation. This includes where demand and generation are co-located i.e. a Final Demand Site connecting any generation would not pay associated reinforcement (again subject to the high-cost project threshold).
- 4.12 However, if a new site was seeking to connect the same generation – perhaps even adjacent to the Final Demand Site – then that connection would be subject to a 'shallow-ish boundary' i.e. where the customer pays towards the reinforcement at the voltage of connection only (subject to the high-cost project threshold). The Working Group noted that whilst the generation may cause the same impact on the network and require the same reinforcement, this creates a different charging treatment where the generation connecting directly would be charged for any reinforcement at the same Voltage Level, but there would be no charge if it was connected behind the meter and co-located with a Final Demand Site.

### Consideration of primary purpose

- 4.13 Whilst the Access SCR Direction makes reference to the alignment with TCR, paragraph 3.37 of the Access SCR Decision states that policy intent relates to the 'primary purpose' of the site as noted in paragraph 4.10.

*"3.37 .....The policy intent is that sites whose primary purpose for a connection to the network is to consume other than for the purposes of generation or export onto the electricity network should be charged under a shallow boundary. Sites that do not meet these criteria, including generation, should be charged under a shallow-ish boundary"*

- 4.14 However, it is the explicit requirement to consider a site's "primary purpose" that presents an inherent conflict with the TCR.
- 4.15 For example, a windfarm, whose primary purpose is to generate electricity and where it has some import could be eligible to be classed as a Non-Final Demand site. However, if that site chooses not to provide the necessary certification, it would be deemed to be a Final Demand Site. Despite the primary purpose of this site being to export, and therefore would be treated as a Generation Connection for the purposes of connections charging, strict alignment with the TCR definitions would result in it being a Demand Connection and therefore not subject to any costs of reinforcement.

- 4.16 The Working Group considered two key issues with alignment to the TCR; namely fairness and practicalities.
- 4.17 In terms of fairness, the Working Group were concerned that it would create gaming opportunities where, for example, a generator may be incentivised to be a Final Demand Site to avoid paying reinforcement. The Working Group undertook analysis to understand how much of a risk this represents, which is discussed in paragraph 4.40 to 4.45.
- 4.18 In terms of practicalities, the Working Group recognise that Non-Final Demand Site certification presents a practical barrier for the purposes of connection charging for a new site. Whilst certification could be included as part of the new connection process, it relies upon an MPAN having been created and registered to satisfy the definition. Therefore, the Working Group believe that all new sites would, strictly speaking, be classed as a Final Demand Site regardless.
- 4.19 Due to this conflict and its concerns about aligning to the TCR in strict terms, the Working Group agreed that it would be pragmatic to develop different options for defining Demand Connection and Generation Connection, to (i) align with the TCR and (ii) consider the primary purpose of a site. The Working Group agreed that the Authority should consider the options when making its decision on the CP, in line with the provisions of the DCUSA (Clause 11.24).

#### Treatment of battery storage

- 4.20 It is clear from the policy intent that storage should be treated as a Generation Connection. This is consistent with the TCR and definition of Non-Final Demand Site. Therefore, storage will be treated consistently with generation, and where storage triggers reinforcement it will be charged a proportion of any reinforcement at the same voltage level of the Point of Connection irrespective if the Reinforcement is caused by the import or export.
- 4.21 Also consistent with the TCR is that storage co-located on a site which consumes electricity other than for the purposes of generating then exporting or storing that electricity, would be a Final Demand Site. This is supported by paragraph 3.48 of the Access SCR Decision and therefore if the storage is connected behind the meter then it will not be subject to charges for reinforcement.

#### Options for defining Demand Connection and Generation Connection

- 4.22 The Working Group considered six options in total: four core options plus two sub-options, and narrowed down to three for the purposes of this consultation:
- i) Option 1(a) Alignment with the TCR;
  - ii) Option 1(b) Alignment with the TCR in principle; and
  - iii) Option 3(b) Objective consideration of a site's primary purpose.
- 4.23 A full assessment of the six options considered by the Working Group can be found in attachment 2. The attachment includes:

- (i) a review of the relevant extracts from the Access SCR Decision;
- (ii) working Group views on the issues the Access SCR Decision creates;
- (iii) an explanation of the various options considered by the Working Group;
- (iv) how the options would result in different outcomes for illustrative connection applications;  
and
- (v) the Working Group's views on advantages and disadvantages of each of the three options it is seeking views on from this consultation.

4.24 Option 1(a) is aligned with the Access SCR Direction and differs from option 1(b) only insofar as it does not use the defined terms Final Demand Site and Non-Final Demand Site. Instead, it introduces additional defined terms but to make it more transparent and easier to understand for the customer without cross referencing to a separate document<sup>1</sup>. The Working Group consider these two options to be 'fully compliant' with the Access SCR Direction.

4.25 Option 3(b) retains the principles of the TCR insofar as the concept of Final Demand is prevalent, but again does not utilise such terms defined by the TCR and requires a DNO/IDNO Party to consider the Primary Purpose of the site via an objective assessment. The Working Group consider this option be 'non-compliant' with the Access SCR Direction, but consider this option to be justifiable on the basis it better meets the Access SCR Decision.

4.26 The Working Group is therefore seeking views on these options and which should be taken forward.

**Question 3: Out of the options that align with the TCR, do you have a preference for option 1(a) or option 1(b), and why?**

**Question 4: Do you agree that an alternative option (which is not TCR-aligned) is necessary, and do you agree that the option proposed is suitable? If not, please provide your rationale.**

**Question 5: Which of these three definitions do you believe is most suitable to meet Ofgem's policy intent and why?**

**Question 6: Can you provide any better options other than the options considered by the Working Group?**

#### Working Group Analysis

4.27 The Working Group carried out analysis to better understand the risk that a generator may seek to be classed as a Demand Connection for the purposes of connection charging i.e. to avoid reinforcement costs. In doing so, the Working Group considered the costs that a generator may therefore face once connected and which it otherwise would not i.e. costs which a generator (or Non-Final Demand Site) can avoid post-connection. For distribution-connected sites, such costs include:

*DUoS residual charges – levied on a pence per day basis relative to import consumption/capacity unless Non-Final Demand Site certification is provided to the relevant DNO/IDNO Party;*

*Transmission Network Use of System (TNUoS) residual charges – levied on a pence per day basis relative to import consumption/capacity unless Non-Final Demand Site certification is provided to the relevant DNO/IDNO Party;*

*Balancing Services Use of System (BSUoS) charges – levied on a £/MWh basis relative to import or export usage unless Non-Final Demand Site certification is provided to the relevant DNO/IDNO Party; and*

*Policy costs such as Contracts for Difference (CfD) and the Capacity Market, converted to a £/MWh basis where necessary.*

- 4.28 For annual fixed charges i.e. the residual charges, the Working Group used the latest published DUoS charges for the 2023/24 regulatory year and identified the average, minimum and maximum annual costs across each DNO Party given they can vary materially. TNUoS costs for the 2023/24 regulatory year were based on April 2022 forecasts published by the Electricity System Operator (ESO) and were added to each range of DUoS equivalent costs per 'charging band' for distribution connected sites, to derive a total annual fixed cost per customer.
- 4.29 For volumetric charges: BUoS, the Working Group used charges for the 2023/24 regulatory year based on July 2022 forecasts published by the ESO; and for policy costs the working group used the latest publicly available information; taking an average quarterly CfD rate for the 2023/24 regulatory year, and Capacity Market forecasts for the 2023/24 regulatory year from the Office for Budget Responsibility (OBR).
- 4.30 The Working Group considered four scenarios that represent typical import capacities associated with large generation connections (e.g. 30MW+), namely where the import connection is low voltage (LV) with a maximum import capacity (MIC) of 100kVA and 500kVA, and a high voltage (HV) import connection with a MIC of 500kVA and 1,000kVA.
- 4.31 For the volumetric charges (i.e. BSUoS and policy costs), the Working Group considered a range of load factors to quantify potential annual usage. The working group considered:
- i) In-house technical expertise and judgement;
  - ii) Average LV and HV load factors derived based on 2023/24 published DUoS charges for Non-Final Demand Sites – which supported an average range across all DNOs between 3%-8% and 5% on average for both LV and HV combined; and
  - iii) Site specific data for the 2021/22 regulatory year for Northern Powergrid Non-Final Demand Sites (around 160 sites) – which demonstrated that around 75% of all sites had a load factor <5%, and this increased to around 90% for <10% (albeit the Working Group recognised that some data showed a load factor of around 35%, with the average across all sites being around 4%).
- 4.32 The Working Group agreed to assess volumetric charges using a range of load factors, where:

- i) 2% represents typical minimum usage;
- ii) 5% represents average usage; and
- iii) 10% represents typical maximum usage.

4.33 To assess the commercial decision of a generator, when deciding whether it is economically beneficial to pay reinforcement and avoid some enduring costs, the Working Group considered a notional generator economic life of 20 years, and for simplicity assumed static annual residual charges and usage. A net present value (NPV) was derived based on an assumption of a 5% return on investment.

4.34 In total, mapping the minimum fixed charges to the lowest load factor etc, the maximum costs that a generator may need to pay post-connection, which could otherwise be avoided as a Demand Connection, ranged from an NPV of approximately £92k to £845k:

<b>20 years NPV @ 5%</b>	<b>100kVA connected at LV</b>	<b>500kVA connected at LV</b>	<b>500kVA connected at HV</b>	<b>1000kVA connected at HV</b>
Min	£29,447	£114,211	£246,582	£267,763
Ave	£55,524	£215,669	£445,848	£498,799
Max	£91,819	£364,249	£738,922	£844,824

4.35 The Working Group considered that this analysis gave a realistic indication of the annual charges that a generator currently avoids by being classed as Non-Final Demand Site. The analysis shows that if a 100kVA import capacity was adequate, then the costs that a generator can avoid amount to just over £55k on average. The Working Group considered that it would appear rational for a generator to seek to satisfy criteria to be deemed a Demand Connection for the purposes of connection charging, if around £55k of reinforcement charges (Cost Apportionment Factor (CAF) contribution) could be avoided. i.e. it would seek to avoid the greater cost of the reinforcement or the NPV of the annual charges. For a 1,000kVA import, then on average this would appear rational if around £500k of reinforcement charges were avoided.

4.36 The Working Group therefore considered how likely it would be and investigated how many connection offers were made to generators in the 2020/21 and 2021/22 regulatory years where their reinforcement contribution was greater than £50k.

4.37 The Working Group considered a range of reinforcement contributions and identified that just over half (54%) of all offers included a contribution <£50k. For these offers, the Working Group consider that the avoided reinforcement costs are lower than the NPV of the annual charges and therefore it is reasonable to assume that on average around half of all connection offers would not offer a strong enough incentive to avoid paying for reinforcement.

4.38 Therefore, around half (46%) may see a strong enough incentive to seek to avoid paying reinforcement costs at the expense of facing higher ongoing use of system and policy costs. The findings are summarised below:

Reinforcement contribution by Ofgem reporting category	£50k-£200k	£200k-£400k	£400k-£1m	>£1m	Total
DG132	4%	2%	4%	9%	20%
DGEHV	7%	3%	5%	4%	20%
DGHV	3%	1%	1%	0%	5%
DGLV	0%	0%	0%	0%	0%
<b>Total</b>	15%	7%	10%	13%	46%

4.39 The strength of the incentive varies relative to the cost of the reinforcement. The higher the reinforcement charges the more beneficial it is for the generator to pay the annual charges to avoid those reinforcement costs. However, there are fewer connections with larger connections charges as shown in the table above.

4.40 The table below shows the overall percentage of connections at the different levels of connection. This is the same data as shown above but presented in a cumulative way. Overall, 46% of connection offers with reinforcement have reinforcement costs greater than £50k. A round a quarter of connection offers (24%) may result in generators being incentivised to be a Final Demand Site and therefore pay the annual charges (as these are known) to avoid paying reinforcement contributions of around £400k. For 13% when contributions would be around £1m this would appear to be a very strong incentive to pay the annual charges:

Threshold	£50k	£200k	£400k	£1m
% of connection offers	46%	30%	24%	13%

4.41 Therefore, the Working Group consider that a significant proportion of generators will face a reasonable commercial decision as to whether they should seek to satisfy criteria of a Demand Connection for the purposes of connection charging. It is therefore essential that the terms Demand Connection and Generation Connection are appropriately defined to avoid introducing undue distortions that will result in DUoS customers facing higher than necessary costs, to recognise (e.g.) that a generator is principally a generator regardless of if it has a small amount of 'Final Demand' on site.

#### Mitigations against gaming

4.42 The Working Group recognise the risk that such generators may still be able to also avoid the enduring use of system and policy costs unless appropriate mitigation steps are implemented. One such mitigation could be when a change in Non-Final Demand Site certification may be considered reasonable, and/or where retrospective contributions to reinforcement may become a liability to the connectee as a further protection to DUoS customers.

- 4.43 The Working Group raised concerns about unintended consequences and complexities of seeking retrospective reinforcement contributions, where for example a generator is treated as a Demand Connection for the purposes of connection charging, but later certifies as a Non-Final Demand Site for use of system charging (i.e. avoiding significant enduring costs as well as upfront reinforcement costs).
- 4.44 The Working Group considered that it would be reasonable to amend the definitions of Final Demand Site/Non-Final Demand Site in Schedule 32 to reference whether, since 1 April 2023, that site was subject to the demand or generation connection boundary.
- 4.45 This could take the form of an additional criteria, added to the definitions e.g. (with potential changes in red font and underlined):

*“Final Demand Site means: (a) Domestic Premises; or (b) a Single Site (as defined in Schedule 32) at which there is Final Demand, as determined in accordance with Paragraphs 1.10 and 5 of Schedule 32, or (c) a Single Site that has needed reinforcement but not paid for it relating to a connection application since 1 April 2023.”*

- 4.46 The Working Group recognise that there may also be a need to review the ‘exceptional circumstances’ in Schedule 32 to reflect when a change in Non-Final Demand Site certification is appropriate.

**Question 7: Do you agree with the Working Group that there is a risk that the options for defining Demand Connection and Generation Connection may incentivise a customer to ensure that it satisfies the definition of Demand Connection? If not, please provide your rationale.**

**Question 8: What mitigations do you consider appropriate and why, and how would any be implemented?**

### **High-Cost Project Thresholds**

- 4.47 In the Access SCR Decision and Access SCR Direction, Ofgem set out its intention to retain the high-cost project threshold for a Generation Connection and introduce a similar approach for a Demand Connection. The specific values of the thresholds are included in paragraphs 13(iii) and 13(iv) of the Access SCR Direction; £200/kW for a Generation Connection and £1720/kVA for a Demand Connection.
- 4.48 These high-cost project thresholds are applied to any connections where there is Reinforcement to ascertain whether the cost of the Reinforcement at the same voltage as the Point of Connection plus the Voltage Level above is greater than the appropriate high-cost project threshold. Note that this assessment includes costs of Reinforcement that are not included in the charges for connection where the high-cost project threshold is not reached.
- 4.49 If the cost of this reinforcement is greater than the appropriate high-cost project threshold, then the connecting customer pays for all the costs above the threshold.

4.50 The Working Group identified a contradiction between the Access SCR Decision and Access SCR Direction, and between parts of the Access SCR Direction in terms of the treatment of costs below the high-cost project threshold for a Generation Connection. The Access SCR Decision is clear that the policy intent is for any costs under the high-cost project threshold to be treated consistent with the new charging arrangements, see extract below:

*3.56 .....Reinforcement below the cap will be paid for according to the new connection boundary arrangements, such that generation connections will pay an apportioned contribution, and demand connections will pay no contribution (subject to applicable exceptions).*

4.51 The Working Group raised this issue to Ofgem and Ofgem's policy intent was clarified <sup>8</sup>on 4 August 2022; confirming that the Access SCR Decision set out the correct policy intent as opposed to the Access SCR Direction. This clarified the intent, and the Working Group has developed the legal drafting to follow this policy intent such that for reinforcement below the high-cost project threshold, the connecting customer pays the costs appropriate to whether it is a Demand Connection or a Generation Connection ie:

- For a Demand Connection, reinforcement costs below the high-cost project threshold will be paid in full by the DNO; and
- For a Generation Connection,
  - Reinforcement costs at the same Voltage Level as the Point of Connection will be apportioned between the customer and the DNO using the existing cost apportionment methodology; and
  - Reinforcement costs at the Voltage Level above the Point of Connection will be paid for in full by the DNO.

**Question 9: Do you believe that the legal drafting delivers Ofgem's Direction (as clarified in Ofgem's letter dated 04 August 2022)? If not, please provide your rationale..**

4.52 As the policy intent for the reinforcement costs that are considered in assessing the applicability of the high-cost project threshold are different to those used for both a Demand Connection and a Generation Connection, the Working Group has developed a new table to clearly indicate what costs are included in the assessment (please see paragraph 1.16 in attachment 3).

**Question 10: Is the inclusion of the table helpful?**

---

<sup>8</sup> [Access and Forward-Looking Charges Significant Code Review: Decision and Direction | Ofgem](#)

## Changes to Exceptions

4.53 The changes to the connection boundary caused the Working Group to review some of the existing charging principles to check alignment with Ofgem's policy intent. Two situations were identified that would result in potentially inequitable treatment of connection customers.

4.54 In the current charging methodology, Exception 1 covers a situation where there is interconnection downstream of the Point of Connection (and is illustrated in example 2B of the current version of Schedule 22 – Attachment 6). In this scenario, the addition of the interconnection results in what were Extension Assets (and fully funded by the new connection) become treated as Reinforcement and the costs shared between the connecting customer and DUoS customers. With the changes from the Access SCR Decision, for a Demand Connection, this would result in no charges being made for the assets that actually connect the site. This creates a different charging outcome, whereby

- without the interconnection, the connection customer would pay for the assets as Extension Assets; or
- With the interconnection the costs would be fully borne by DUoS customers and the connecting customer would not pay anything.

4.55 In order to address this anomaly, changes have been made to Exemption 1 so that the Extension Assets are paid for by the connection customer as they are necessary for the new connection to the site. The costs of the interconnection are then borne by whichever party request it;

- if the customer requests it, they pay (see example X, in Attachment Y); or
- If the DNO requests it, it pays. (see example X, in Attachment Y)

4.56 A similar anomaly was identified by the Working Group when it reviewed Exception 5 as illustrated in Example 8B. Exception 5 covers the situation where assets to connect a site are considered to be Reinforcement (as they create capacity). The Exception considers that the new network that is within the site boundary is to provide connectivity within the new development and therefore should be treated as Extension Assets and paid in full by the new connection. With the changes due to the Access SCR Decision, for a Demand Connection, this scenario would again result in a situation where the new connection was not charged for the assets to connect it to the existing network. This would create an anomaly whereby a new connection that was teed into the network (ie connected by a single circuit) would pay for those assets, but if it was looped in (ie connected by two circuits) then it would not be charged and the costs would be borne by DUoS customers.

4.57 In order to address this, a new Exception is proposed that extends the principle from the current Exception 5 so that the new connection pays for the assets that connect it to the network. This would be done by assessing the cost of the two circuits that connect the new connection and the lower cost circuit would be treated as Extension Assets (and paid by the connecting customer) and the other circuit treated as Reinforcement and not charged.

4.58 This new Exception has been numbered Exception 5 and therefore the existing Exception 5 has been renumbered to become Exception 6 within Attachment 3. The reason for this is that it flows better within the legal text.

**Question 11: Do you support the Working Group's rationale for the changes to Exception 1 and addition of a new Exception 5? If not, please provide your rationale.**

#### **CCCM examples of a Demand Connection/Generation Connection**

4.59 The Working Group has reviewed all the current examples in the CCCM to assess their applicability with the revised connection boundaries. Each existing example was reviewed and assessed against the following criteria:

- The example is still needed to illustrate an unchanged policy;
- The example only applies to a Generation Connection and therefore needs to be changed;
- The example is not needed as the policy has changed or is illustrated in another example; and
- A new example is needed to illustrate the revised policy.

4.60 In addition the Working Group has made some proposed presentational changes to simplify the examples:

- The order of the examples has been changed into a logical sequence;
- The split of contestable and non-contestable costs has been removed;
- The CiC (Competition in Connections) charges have been removed;
- An index of examples has been added;
- A purpose has been added to each example to explain what it seeks to do; and
- The costs included in the example have been updated.

4.61 A tracked version of the examples has not been provided due to the extent of the changes, however a summary list of the new examples, their purpose, the categorisation and a cross reference to the existing CCCM examples is included in Attachment 4. Note that many of the diagrams need updating, and these will be done for the final version contained within the DCP 406 Change Report but have not been completed in the consultation. Notes are added in Attachment 4 to explain where changes will be needed.

**Question 12: The Working Group has made a number of presentational changes to the CCCM examples, do you support this? If not, please provide reasons why they should not be changed.**

**Question 13: Do you believe that the proposed examples are sufficient to illustrate the key changes being proposed, or do you believe additional examples should be included? If so, please provide details.**

## Overall

4.62 As stated above, the Working Group considered four key areas when developing this solution; Definitions of Demand Connection/Generation Connection, high-cost project threshold drafting, drafting of new Exception, and CCCM Examples of a Demand Connection/Generation Connection. The Working Group also considered and added a definition for Voltage Level.

**Question 14: Overall, do you agree that the draft legal text delivers the intent of the Ofgem Direction? If not, please provide your rationale.**

## 5 Assessment Against the DCUSA Objectives

5.1 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 406 will be measured against the DCUSA Charging Objectives, which are set out in the table below:

	<b>DCUSA Charging Objectives</b>	<b>Identified impact</b>
<input checked="" 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
<input checked="" 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)	Neutral
<input checked="" 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	Neutral
<input checked="" 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	Neutral
<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.	Negative

- 5.2 This change is to comply with an Ofgem direction arising from its Access SCR Decision and Direction and therefore directly supports Charging Objective 1.
- 5.3 The changes result in less costs being charged to the connecting customer and therefore more costs recovered through DUoS. How DUoS costs are recovered is not in scope of this change proposal and therefore may require reviewing to ensure desired alignment and cost recovery and is therefore potentially negative in relation to Charging Objective 3. However, the Working Group recognise that the Access SCR Decision has determined that this change compared to the current arrangements is justified. The Working Groups view is that this CP is neutral to this objective.
- 5.4 The change also introduces different charging arrangements for a Demand Connection and a Generation Connection and therefore adds more complexity into the assessment of the type of connection so that the appropriate charging regime can be applied; therefore, there is a potentially negative impact in relation to Charging Objective 6. However, the Working Group recognise that the Access SCR Decision has determined that this change compared to the current arrangements is justified.

**Question 15: Do you consider that the proposal 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.**

## 6 Impacts & Other Considerations

- 6.1 BEIS are intending to make changes to Electricity Connection Charging Regulations (ECCR) in parallel to ensure alignment of treatment of customers once this change is implemented.

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

- 6.2 This CP removes/reduces the locational charge associated with new connections, this may be something that will be considered in the Forward Looking Charges phase of the Access SCR (the 'DUoS SCR') which the Working Group expect Ofgem to publish further information on in Q4 2022.

**Does this Change Proposal Impact Other Codes?**

- BSC
- CUSC
- Grid Code

- MRA
- SEC
- REC
- None

## Consideration of Wider Industry Impacts

6.3 The focus of this CP has been subject to a number of industry consultations as part of the Access SCR process. In addition, the ENA held two briefing sessions for parties interested in joining a DCUSA working group on these changes.

6.4 It should be noted that in order to implement the Access SCR Decision/Access SCR Direction, four DCUSA CPs were raised in total. The other three CPs that relate to the SCR are detailed below:

- [DCP 404 'Changes to Terms of Connection for Curtailable Customers'](#)
- [DCP 405 'Managing Curtailable Connections between Licensed Distribution Networks'](#)
- [DCP 407 'Speculative Development'](#)

**Question 16: Are you aware of any wider industry developments that may impact upon or be impacted by this CP?**

## Confidentiality

6.5 This CP is not confidential.

## 7 Implementation

7.1 Clause 11.9A(2) of the DCUSA, sets out that in respect of all Authority Change Proposals, which DCP 406 is considered to be, the Authority may by direction, specify and/or amend the date from which the variation envisaged by the CP is to take effect.

7.2 Within the Access SCR Direction, the Authority, in accordance with paragraph 22.9E(a) of SLC C22 directed the DNOs to raise one or more code modification proposals in the terms and for the reasons set out in the Annex of the Access SCR Direction in sufficient time to enable the modifications to be effective as of 01 April 2023.

- 7.3 As noted previously, this CP seeks to introduce processes that will implement the Access SCR Decision. Given this, the Working Group agreed that implementation date for this CP should set for 01 April 2023.
- 7.4 The implementation applies to all new applications received on or after this date. There will therefore be a transition period where DNOs will continue to issue connection offers based on the existing CCCM for application received *before* the Implementation Date. Therefore, both methodologies will be active for this transition period.

**Question 17: Do you agree with the Working Group's proposed implementation date? If not, please provide your rationale.**

## 8 Legal Text

- 8.1 The proposed DCP 406 Legal Text can be found in Attachment 3.
- 8.2 Key aspects of the DCP 406 legal text includes the following:
- Definitions of a Demand Connection/Generation Connection
  - High-cost project threshold drafting
  - Drafting of a new Exception
  - CCCM Examples of a Demand Connection/Generation Connection
  - Definition of Voltage Level
  - A paragraph added to state that if a development is considered to be speculative then the reinforcement costs will be charged in full
  - Paragraph added to state that for Demand Connections DNOs will fully fund all Reinforcement and for Generation Connections DNOs will fully fund Reinforcement carried out at a voltage greater than the voltage at the POC.
  - As the policy intent for the reinforcement costs that are considered in assessing the applicability of the high-cost project threshold are different to those used for both a Demand Connection and a Generation Connection, the Working Group has developed a new table to clearly indicate what costs are included in the assessment.
- 8.3 It is noted that the numbering within Schedule 22 has been updated and therefore all numbering within Schedule 22 will need to be reviewed prior to submission to Ofgem. This review will take place at the Change Report stage when all four SCR CPs are taken into consideration together and an appropriate numbering system will be provided. For the purposes of this review, we are seeking feedback on the wording only not the numbering.

## 9 Code Specific Matters

### Reference Documents

9.1 The Access SCR Decision and Access SCR Direction which can be found [here](#).

## 10 Consultation Questions

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

No.	Questions
1	Do you understand the intent of DCP 406?
2	Are you supportive of the principles of DCP 406?
3	Out of the options that align with the TCR, do you have a preference for option 1(a) or option 1(b), and why?
4	Do you agree that an alternative option (which is not TCR- aligned) is necessary, and do you agree that the option proposed is suitable? If not, please provide your rationale.
5	Which of these three definitions do you believe is most suitable to meet Ofgem's policy intent and why?
6	Can you provide any better options other than the options considered by the Working Group?
7	Do you agree with the Working Group that there is a risk that the options for defining Demand Connection and Generation Connection may incentivise a customer to ensure that it satisfies the definition of Demand Connection? If not, please provide your rationale.
8	What mitigations do you consider appropriate and why, and how would any be implemented?
9	Do you believe that the legal drafting delivers Ofgem's Direction (as clarified in Ofgem's letter dated 04 August 2022)? If not, please provide your rationale.
10	Is the inclusion of the table helpful?
11	Do you support the Working Group's rationale for the changes to Exception 1 and addition of a new Exception 5? If not, please provide your rationale.
12	The Working Group has made a number of presentational changes to the CCCM examples, do you support this? If not, please provide reasons why they should not be changed.

13	Do you believe that the proposed examples are sufficient to illustrate the key changes being proposed, or do you believe additional examples should be included? If so, please provide details.
14	Overall, do you agree that the draft legal text delivers the intent of the Ofgem Direction? If not, please provide your rationale.
15	Do you consider that the proposal 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.
16	Are you aware of any wider industry developments that may impact upon or be impacted by this CP?
17	Do you agree with the Working Group's proposed implementation date? If not, please provide your rationale.
18	Any other comments?

10.2 Responses should be submitted using Attachment 1 to [dcusa@electralink.co.uk](mailto:dcusa@electralink.co.uk) no later than, **05 September 2022**.

10.3 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.

## 11 Attachments

- Attachment 1: DCP 406 Consultation Response Form
- Attachment 2: Definition of Demand Connection/Generation Connection
- Attachment 3: DCP 406 Draft Legal Text
- Attachment 4: CCCM Examples
- Attachment 5: CCCM Examples Summary
- Attachment 6: Existing CCCM
- Attachment 7: DCP 406 Change Proposal Form

---

<sup>i</sup> Whilst Schedule 22 sits with DCUSA, it is more commonly used in DNO's charging methodologies.