









DCUSA Consultation		At what stage is this document in the process?
<h2>DCP 348</h2> <h3>DNO charging for installing capacity management and communications equipment to enable Flexibility in Connections</h3> <p><i>Raised on the 28 June 2019 as a Standard Change</i></p>		01 – Change Proposal
		02 – Consultation
		03 – Change Report
		04 – Change Declaration
Purpose of Change Proposal: The intent of this Change Proposal is to develop a transparent and consistent approach across all DNOs for charging for Flexible Connections ¹ .		
 	<p>The Working Group recommends that this Change Proposal should: proceed to Consultation</p> <p>Parties are invited to consider the questions set in section 9 and submit comments using the form attached as Attachment 1 to dcusa@electralink.co.uk by 23 October 2019.</p> <p>DCP 348 has been designated as a Part 1 Matter and a Standard Change.</p> <p>The Working Group will consider the consultation responses and determine the appropriate next steps for the progression of the Change Proposal (CP).</p>	
	<p>Impacted Parties: DNOs, IDNOs, and CVA Registrants</p>	
	<p>Impacted Clauses: Section 1 of Schedule 22 – The Common Connection Charging Methodology</p>	

¹ Flexible Connections are connection arrangements whereby a customer's export or import of electricity is managed (often through real-time control) based upon contracted and agreed principles of availability of capacity. Flexible Connections typically allow quicker and cheaper connection to the Distribution System but have no defined cap on the extent to which a user's access can be interrupted.

Contents		 Any questions?
1	Summary	3
2	Governance	6
3	Why Change?	7
4	Working Group Assessment	10
5	Legal Text	12
6	Relevant Objectives	13
7	Impacts & Other Considerations	15
8	Implementation	15
9	Consultation Questions	15
Timetable		 02074323000
The timetable for the progression of the CP is as follows:		Proposer: Tim Hughes
Change Proposal timetable:		 thughes@westernpower.co.uk
Activity	Date	 0117 933 2148
Initial Assessment Report Approved by Panel	17 July 2019	
Consultation issued to Parties	02 October 2019	
Change Report issued to Panel	11 December 2019	
Change Report issued for Voting	20 December 2019	
Party Voting Ends	15 January 2020	
Change Declaration Issued to Parties and the Authority	17 January 2020	
Authority Decision	21 February 2020	
Implementation	5 Working Days following Authority Approval	

1 Summary

What?

Background

- 1.1 In its launch of the Access and Forward-Looking Charging Significant Code Review (the “Access SCR”) and wider decision letter dated 18 December 2018, Ofgem outlined the following as part of the scope of the industry-led Access Rights Allocation Working Group (the “ARAWG”):

“As proposed in our consultation, we confirm that the review will not take forward consideration of the use of auctions at this stage for the allocation of access rights. Instead, we believe that the Electricity System Operator and network companies should lead on reviewing incremental improvements to the allocation of access rights (e.g. better management of connection queues, allowing generation who have non-firm connections to trade with others to reduce the extent they are curtailed, and enabling the exchange of access rights between users). We think this will have benefits in supporting more efficient allocation of access and in revealing the value of increased network capacity.”

- 1.2 The following products have been identified for delivery by the ARAWG²:

1. Trading of non-firm distributed generation curtailment obligations;
2. The exchange of access rights between users;
3. Queue Management; and
4. Active Network Management (ANM) Charging.

This Change Proposal (CP) relates to product 4 only.

- 1.3 Product 4 looks at how network companies are recovering network costs associated with flexible connections, including those associated with the range of ANM schemes, including approaches to schemes that have naturally had to evolve over time. Ofgem has stated that it views Flexible Connections as a key component to reducing barriers to market entry for new participants. The product 4 objective is to develop a consistent approach across all GB Distribution Network Operator (DNOs) for charging network users the costs associated with flexible schemes, which includes connections provided via ANM schemes. The outcome of this product is this change proposal.

² <http://www.chargingfutures.com/media/1327/non-scr-industry-led-access-pid-v11-final.pdf>

- 1.4 ANM is a defined term within the Energy Network Association (ENA)'s Open Networks Terms and Definitions Document³ and is replicated below:

“Active Network Management is the use of distributed control system to continually monitor network limits, along with systems that provide signals to DER (Distributed Energy Resources) to modify outputs in line with these limits.”

- 1.5 The ARAWG considered the principles for charging for system management equipment could apply across a broad spectrum of connection types and the use of the term ‘Flexible Connections’ was more appropriate than ‘ANM’. As a consequence, this CP and the associated proposed changes to the Common Connection Charging Methodology (CCCM) utilises these terms.

- 1.6 The term ‘Flexible Connections’ is defined within the ENA's Open Networks Terms and Definitions Document and this is replicated below:

“Flexible Connections are connection arrangements whereby a customer's export or import is managed (often through real-time control) based upon contracted and agreed principles of availability of capacity. Timed connections and connections utilising Active Network Management arrangements are examples of Flexible Connections.

Occasionally, Flexible Connections are also referred to as Managed Connections.

The need for network access to be managed, may arise through capacity limitations which are local or remote from the Connection Point. For example, a Flexible Connection might comprise a Firm local connection, but with a constraint being present deeper in the network. Flexible connections are offered to customers so that reinforcement can be avoided or deferred”.

- 1.7 The ARAWG considers that consistency of approach across all DNOs can best be provided through the publication of information within each DNOs CCCM showing how costs associated with Flexible Connections will be recovered.

Why?

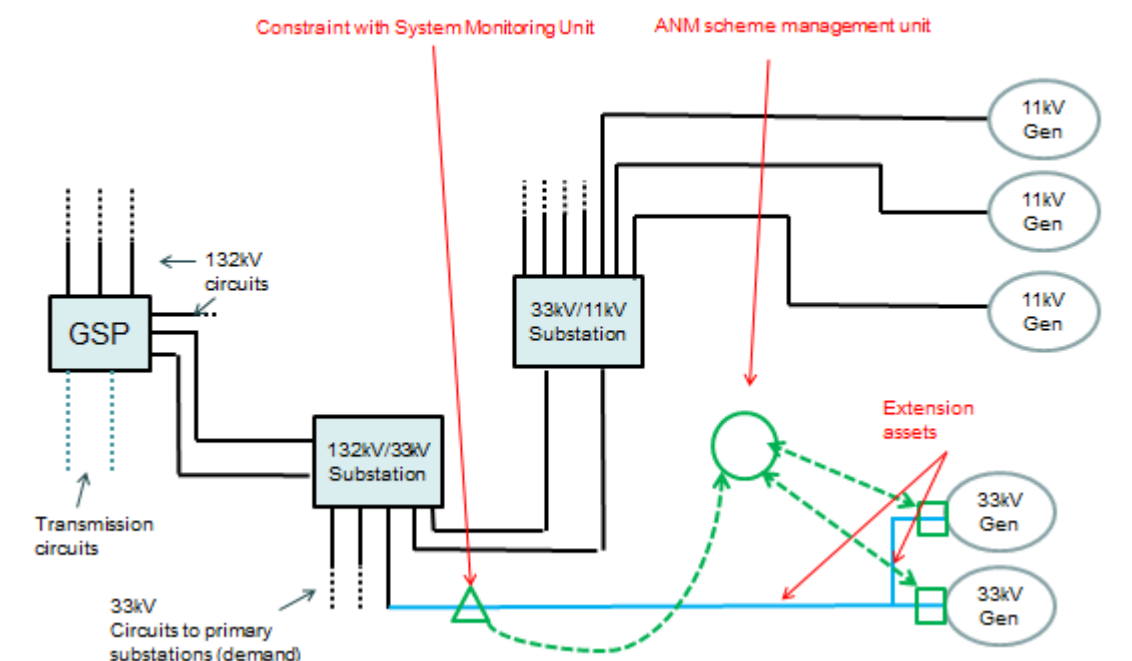
- 1.8 This CP should be made to provide network users who require a new or modified connection via a Flexible Connection option with greater certainty and understanding of the charges they may incur directly as part of the connection charge. In addition, this change seeks to develop a consistent methodology across all DNOs for charging network users the costs associated with Flexible Connection schemes.

³ [http://www.energynetworks.org/assets/files/180723%20ON-PRJ-WS2%20-%20P3%20Terms%20and%20Definitions%20V1.1%20\(published\).pdf](http://www.energynetworks.org/assets/files/180723%20ON-PRJ-WS2%20-%20P3%20Terms%20and%20Definitions%20V1.1%20(published).pdf)

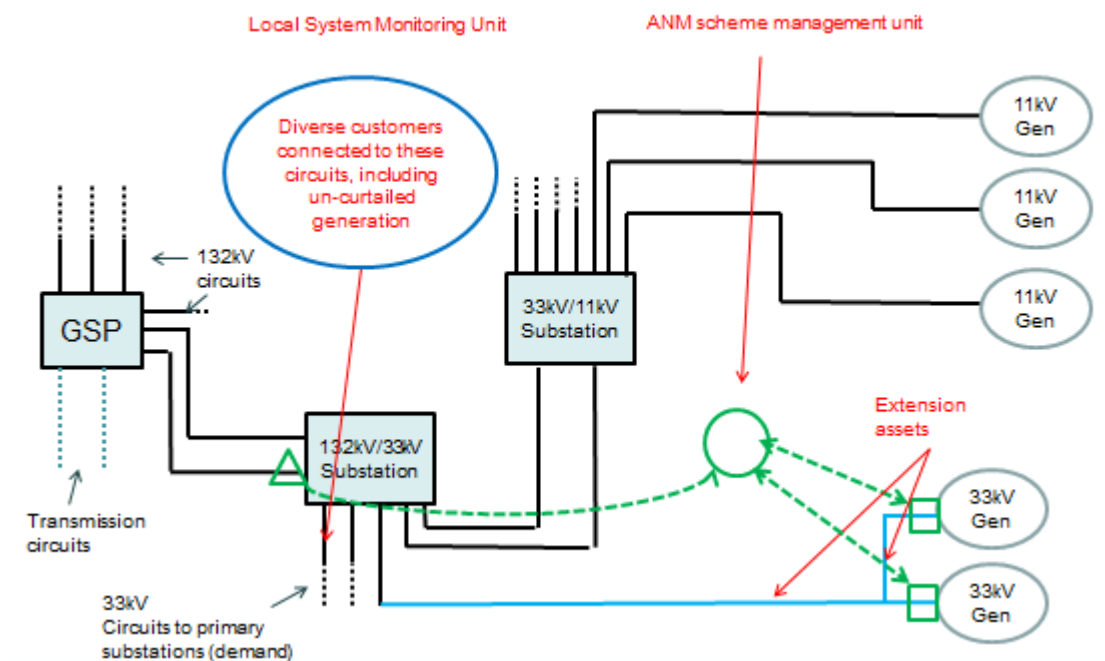
How?

- 1.9 The type of charge applied, whether directly (via the connection charge) or indirectly (via Distribution Use of System (DUoS) charges) is dictated according to the connection scheme to which it relates. The ARAWG determined that connection schemes would fall in to two main categories known as either Dedicated Schemes or Wide Area Schemes, defined as follows:
- 1.10 A **Dedicated Scheme** is a scheme managing constraint(s) where there are no customers downstream of the constrain(s) who could connect new or additional [generation] without being controlled by a Dedicated Scheme.
- 1.11 Dedicated Schemes can be sub-categorised in to two types:
- Type A considers a scenario involving only one customer
 - Type B considers a scenario involving multiple customers
- 1.12 A **Wide Area Scheme** is a scheme managing constraint(s) where there are customers downstream of the constrain(s) who could connect new or additional [generation] without being controlled by the Wide Area Scheme.
- 1.13 An example of these schemes is shown below:

Dedicated Scheme – Type B



Wide Area Scheme – Type B



- 1.14 According to how a connection is designated, i.e. a Dedicated or Wide Area Scheme, will determine the charging methodology applied. Some charges may be attributed directly to the network user within the connection charge, some charges may be shared, and some charges may be recovered through on-going DUoS.
- 1.15 The rationale behind this methodology is given in section 3 below and the proposed charge allocation is shown in section 4 below.

2 Governance

Justification for Part 1 Matter

2.1 This CP is considered a Part 1 Matter as it satisfies one or more of the following criteria:

- It is likely to have a significant impact on the interests of electricity consumers;
- It is likely to have a significant impact on competition in one or more of:
 - The generation of electricity;
 - The distribution of electricity;
 - The supply of electricity; and
 - Any commercial activities connected with the generation, distribution or supply of electricity.

Current Next Steps

- 2.2 The Working Group agree that the next steps are to issue this consultation document to Parties for a period of three weeks.

3 Why Change?

Background of DCP 348

- 3.1 In December 2017, Scottish and Southern Electricity Networks (SSEN) submitted a Modification Proposal⁴ to Ofgem requesting a change to their Statement of Methodology and Charges for Connection (the Methodology) in order to provide clarity surrounding charges for operation and maintenance citing the need for greater clarity and cost reflectivity in the way in which operation and maintenance costs were calculated and applied to Flexible Connections.
- 3.2 Following an industry wide consultation, Ofgem issued a directive vetoing the Modification Proposal⁵ on the basis that SSEN had failed to sufficiently demonstrate how the modification would better achieve the Relevant Objectives (as listed in Standard Licence Condition 13). Within that directive, Ofgem stated their expectation that DNOs should keep their methodologies under review as experience with Flexible Connections is acquired and they encouraged DNOs to consider the issue further to help provide clarity to consumers about how costs of providing Flexible Connections are treated. This CP is the result of that work.
- 3.3 It is also recognised that central ANM schemes are now being designed to control much larger areas of network, with participation no longer restricted to just distributed generation. These evolving designs can have the ability to manage technology agnostic flexibility services (demand-side response, energy storage and aggregators of multiple virtual power plants), provide capacity to accelerate the deployment of low carbon technologies (such as electric vehicles and heat pumps), and re-configure networks to optimise the capacity within existing assets. The benefits therefore go beyond just the individual flexible/ANM connected customer.
- 3.4 The ARAWG agreed that any principles for cost recovery on Flexible Connections schemes should be developed and become part of the CCCM, thus ensuring:
- Transparency of charges;

⁴ https://www.ofgem.gov.uk/system/files/docs/2018/01/annex_a_-_ssen_modification_report_0.pdf

⁵ https://www.ofgem.gov.uk/system/files/docs/2018/04/decision_to_direct_ssen_not_to_make_a_modification.pdf

- Consistency of approach;
- Transparency of allocation;
- Due consideration to application of 'Minimum Scheme' principles; and
- Recognition of any wider and future beneficiaries of ANM schemes.

3.5 **Transparency of charges** – market entrants understand the charging rules that will determine the connection charges they will incur and therefore level of finance exposure.

3.6 **Consistency of approach** – development of a coordinated and consistent framework of charging principles for the main cost elements across DNOs.

3.7 **Transparency of allocation** – development of arrangements that recognise Flexible Connection schemes may deliver benefits for:

- An individual connection or clearly defined set of customers;
- A wider group of customers (new and future) in the same defined scheme;
- Wider network ANM schemes and/or where the network is of an undefined capacity; or
- Different DER technology types, e.g. DG, DSR, storage, EVs.

Minimum Scheme

3.8 Due consideration was given by the ARAWG to the application of 'Minimum Scheme' principles and the potential impact of the proposed changes on the definition of 'Minimum Scheme', currently stated as:

"The Minimum Scheme is the Scheme with the lowest overall capital cost (as estimated by us), solely to provide the Required Capacity."

3.9 The Required Capacity is defined as:

"is the Maximum Capacity agreed with the Customer. In the case of multiple connections (e.g. a housing development) it may be adjusted after consideration of the effects of diversity. Where an existing Customer requests an increase in capacity then it is the increase above their Existing Capacity."

- 3.10 Previous comments suggested that Flexible Connections did not meet the Required Capacity⁶ so could not be the Minimum Scheme (or could be above the Minimum Scheme and considered an enhanced Scheme).
- 3.11 The ARAWG considered this further and agreed that there is more nuance. Network users now have choices via discussions with the DNO e.g. to accept less than 24/7 capacity continuity via a Flexible Connection – in effect the network user then defines their Required Capacity both in Megawatts and the extent to which they are prepared to be Flexible. If the network user chooses 24/7 continuity the Minimum Scheme will not be a Flexible Connection and will include reinforcement (i.e. the scheme with reinforcement becomes the minimum).
- 3.12 The ARAWG was also mindful of previous feedback to SSEN's earlier Modification Proposal under which Ofgem expressed that it received extensive responses on whether a Flexible Connection could be a Minimum Scheme. While there was no straightforward consensus, the majority of the respondents agreed that a Flexible Connection can indeed qualify for this classification. They stated:
- “The applicant should be at liberty to determine the level of security that will meet their needs and whether or not a flexible connection is a viable alternative to conventional reinforcement. On this basis either solution may be construed as the Minimum Scheme, i.e. the solution must reflect the scheme with the lowest overall capital costs according to the connection type selected by the applicant.”*
- 3.13 The ARAWG therefore concluded that principles surrounding the Minimum Scheme remained fit for purpose across the range of Flexible Connection products.

Cost Recovery of (Shared Benefit) ANM Control and Communications Equipment

- 3.14 The existing CCCM was developed against a backdrop of traditional engineering assets with rules for the apportionment of asset reinforcement costs. These rules for apportionment are applied in recognition of the wider benefits to network users of New Network Capacity⁷ created.
- 3.15 In contrast to this, flexible connections avoid the need for reinforcement by sharing available headroom and utilising existing assets closer to their maximum operating parameters. It was noted by the ARAWG that whilst no New Network Capacity is created, for example by ANM schemes, there remains wider benefits to network users, for example the connection of downstream micro-generation and other technologies.

⁶ Required Capacity is the Maximum Capacity agreed with the Customer. In the case of multiple connections, it may be adjusted after consideration of the effects of diversity. Where an existing Customer requests an increase in capacity then it is the increase above their Existing Capacity.

⁷ New Network Capacity is either the secure or non-secure capacity of the Relevant Section of Network (RSN) following Reinforcement. Whether secure or non-secure capacity is applicable depends upon the type of capacity that can be provided from the RSN.

- 3.16 The ARAWG concluded that it was inappropriate for the costs of those elements of the ANM/Flexible Connections equipment which provide wider network benefit, to be levied on those network users directly controlled by it. This would mean that the DNOs would ensure that the costs will be specific in some areas to some network users for the Dedicated Scheme and socialised where a Wider Scheme is applied i.e. recovered through Use of System Charges rather than directly from the network users directly controlled by it.

Q1: Do you understand the intent of DCP 348?

Q2: Are you supportive of the principles of DCP 348?

4 Working Group Assessment

DCP 348 Working Group Assessment

- 4.1 The DCUSA Panel established a Working Group to assess DCP 348. This Working Group consists of DNO, Independent Distribution Network Operator (IDNO) and Supplier representatives. Meetings were held in open session and the minutes and papers of each meeting are available on the DCUSA website – www.dcusa.co.uk.
- 4.2 The Proposer's initial solution is to create an additional section to the CCCM relating to cost recovery for Flexible Connections. The aim is to provide clarity on charging arrangements. The new section will include a table showing how charges will be allocated to network users. Specifically, it will show for each type of Flexible Connection, who will fund the costs of the communications equipment and when those costs may be shared.

Connection Component	Type 1A - Single	Type 1B - Multiple	Type 2 - Wide Area
Extension assets for customer	You fund	You fund	You fund
End user control unit for the customer	You fund	You fund	You fund
Local System management unit	You fund	Shared [equally between participants/based on capacity requirements of participants]	We fund

Scheme management unit	You fund	Shared [equally between participants/based on capacity requirements of participants]	We fund
Central management unit	N/A	N/A	We fund
Scheme specific ongoing costs e.g. communications	We fund	We fund	We fund

Q3: Do you have any comments on who should pay for the elements identified in the table?

4.3 It should be noted that some costs (those attributed to multiple users on a Dedicated Scheme) will be shared. The methodology for sharing costs has yet to be established but there were two alternatives tabled:

- Equal split of costs between number of participants; and
- Split of costs in proportion to the capacity of each participant.

4.4 Either method could be adopted and one advantage of splitting costs in proportion to capacity is that it would align with practices for calculating refunds under the Electricity (Connection Charges) Regulations 2017 that provides that where a person connects to, and benefits from, electricity infrastructure that was paid for by an earlier party, the earlier party can be reimbursed for a share of the costs by the subsequent connecting customer.

4.5 However, after considering the alternatives, the ARAWG favoured the first option of equally splitting costs regardless of capacity as it offered simplicity in approach. It was argued that, unlike traditional reinforcement apportionment, parties aren't making use of a defined available capacity. The system is carrying out the same operations regardless of the size of a connection, albeit some connections will experience greater constraint than others.

- 4.6 Basing the apportionment on capacity could prove difficult as the DNO would have to define how the capacity is calculated. The assets being installed, usually field monitoring equipment, relays, Remote Terminal Units etc. do not have a capacity rating in the same way as a transformer or cable does so a potentially more subjective alternative assessment method would need to be found. The suggested approach be the Working Group is to use the agreed capacity of the Connectee. For example, one way that this can be calculated is when there are two Connectees associated with the dedicated scheme, one requiring a capacity of 10 MVA the other 15MVA. The method to determine the proportion would be $10\text{MVA} / (10\text{MVA} + 15\text{MVA}) = 10/25$ (the sum of the two capacities) for one (40%) and $15/25$ for the other (60%) of the costs of the elements associated with sharing.

Q4: Which Option (A or B) do you believe is the most appropriate way of apportioning the costs associated with the Dedicated Scheme? Please provide your rationale.

Q5: Do you believe the Working Group should consider a different solution? If so, please provide your rationale.

Engagement with Supplier Parties

- 4.7 When developing the solution for this CP, the Working Group discussed the Impacted Parties and agreed that they did not believe that Supplier Parties would be impacted by the solution of the change since it is specific to the methodology to be applied to connection charges. The only anticipated effects on Suppliers would be the consequential changes to DUoS Charges for some elements of the costs of each scheme.

Q6: Do you believe that it is a fair assessment that Suppliers are not included as Impacted Parties for this CP? If not, why not?

5 Legal Text

DCP 348 Proposed Legal Text

- 5.1 The legal text is intended to provide a concise and clear commentary on the methodology applied for Flexible Connection scheme cost recovery. It will allow network users to assess the potential level of charges that will be applied to their connection scheme.
- 5.2 The draft legal text that has been produced for the development of this change, in the table there is a square bracket with two options for the costs of the Dedicated Scheme when there is more than one impacted connectee:

- Option A is split equally between the capacity used by each connectee; and
- Option B would be split in proportion to the capacity used by each connectee.

5.3 The proposed changes made the following amendments to the legal text:

- Amend paragraph 1.7 of section 1 of Schedule 22 to include an additional bullet point to include the potential for costs associated with Flexible Connections to be included in the connection charge;
- Amend the title of “Cost Allocation” of section 1 of Schedule 22 to exclude Flexible Connections;
- New paragraphs 1.32a and 1.32b to be inserted into Section 1 of Schedule 22 to detail the Flexible Connection Scheme for Cost Recovery; and
- Three new definitions to be included in the glossary table in Section 1 of Schedule 22 for the following terms:
 - Flexible Connections (slightly amended from that contained in paragraph 1.6);
 - Dedicated Scheme; and
 - Wide Area Scheme.

5.4 A copy of the proposed legal text can be found as Attachment 2.

Q7: Do you have any comments on the proposed legal text for DCP 348? Please provide your rationale.

6 Relevant Objectives

Assessment Against the DCUSA Objectives

- 6.1 For a DCUSA Change Proposal to be approved it must be demonstrated that it better meets the DCUSA Objectives.
- 6.2 The Proposer of DCP 348 believes that the proposed solution will better facilitate DCUSA Charging Objectives one, two, three and four. The rationale for these decisions can be found below.

DCUSA Charging Objectives	Identified impact
<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)	Positive
<input checked="" type="checkbox"/> 3 That compliance by each DNO Party with the Charging Methodologies results in charges which, so far 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 checked="" type="checkbox"/> 4 That, so far is consistent with Clauses 3.2.1 to 3.2.3, the Charging Methodologies, so far as is reasonably practicable, properly take account of developments in each DNO Party's Distribution Business	Positive
<input type="checkbox"/> 5 That compliance by each DNO Party with the Charging Methodologies facilitates compliance with the Regulation on Cross-Border Exchange in Electricity and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None
<input type="checkbox"/> 6 That compliance with the Charging Methodologies promoted efficiency in its own implementation and administration	None

- 6.3 DCUSA Charging Objective One is better facilitated as updating the CCCM will ensure each DNOs obligation to prepare a charging statement that sets out the basis on which charges will be made for the provision of connections to the licensee's Distribution System is maintained.
- 6.4 DCUSA Charging Objective Two is better facilitated as updating the CCCM will ensure each DNOs methodology for charging for flexible connections is clear and transparent and will not restrict, distort, or prevent competition in the transmission or distribution of electricity.
- 6.5 DCUSA Charging Objective Three is better facilitated as DNOs will be able to demonstrate how charges for recover of the cost of flexible connections are structured to reflect both specific and wider benefits to participants.
- 6.6 DCUSA Charging Objective Four is better facilitated as the proposed change will ensure that the DNOs charging statements reflect developments in the way that connections are provided, particularly in relation to the implementation of flexible solutions as opposed to traditional reinforcement.

Q8: Which of the DCUSA Objectives does this CP better facilitate? Please provide supporting comments.

7 Impacts & Other Considerations

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

- 7.1 This CP does not directly impact a Significant Code Review or other significant industry change projects. It does, however, support the Access SCR work. For clarity, the work undertaken by the ARAWG considers incremental improvements to the allocation of access rights and this access related work is directly relevant to but does not form part of the SCR.

Consumer Impact

- 7.2 This CP does not have any impact on existing customers, however new connectees will be impacted where Flexible Connections are to be catered for. This scheme will have a common approach which is followed across the industry and there will be a fairer allocation of costs.

Environmental Impacts

- 7.3 In accordance with DCUSA Clause 11.14.6, the proposer assessed whether there would be a material impact on greenhouse gas emissions if DCP 348 were implemented. The proposer did not identify any material impact on greenhouse gas emissions from the implementation of this CP.

Engagement with the Authority

- 7.4 Ofgem were invited to join the Working Group but did not provide an observer to the Working Group.

Q9: Are you aware of any wider industry developments that may impact upon or be impacted by this CP?

8 Implementation

- 8.1 The proposed implementation date for DCP 348 is immediately following Authority approval. To be able to efficiently make the changes to the DCUSA, it is suggested that this is 5 Working Days following receipt of the Authority approval.

Q10: The proposed implementation date for DCP 348 is 5 Working Days following Authority approval. Do you agree with the proposed implementation date? Please provide your rationale.

9 Consultation Questions

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

Number	Questions
1	Do you understand the intent of DCP 348?
2	Are you supportive of the principles of DCP 348?
3	Do you have any comments on who should pay for the elements identified in the table?
4	Which Option (A or B) do you believe is the most appropriate way of apportioning the costs associated with the Dedicated Scheme? Please provide your rationale.
5	Do you believe the Working Group should consider a different solution? If so, please provide your rationale.
6	Do you believe that it is a fair assessment that Suppliers are not included as Impacted Parties for this CP? If not, why not?
7	Do you have any comments on the proposed legal text for DCP 348? Please provide your rationale.
8	Which of the DCUSA Objectives does this CP better facilitate? Please provide supporting comments.
9	Are you aware of any wider industry developments that may impact upon or be impacted by this CP?
10	The proposed implementation date for DCP 348 is 5 Working Days following Authority approval. Do you agree with the proposed implementation date? Please provide your rationale.

9.2 Responses should be submitted using Attachment 1 to dcusa@electralink.co.uk no later than, **23 October 2019**.

9.3 Responses, or any part thereof, can be provided in confidence. Parties are asked to clearly indicate any parts of a response that are to be treated confidentially.

Attachments

- Attachment 1 – DCP 348 Consultation Response Form
- Attachment 2 – DCP 348 Proposed Legal Text
- Attachment 3 – DCP 348 Change Proposal Form