

Part A: Generic

DCUSA Change Proposal (DCP)

DCP 371:

The arrangements for Distributors to manage specific consumer connected devices

Date raised: XXX

Proposer Name: Richard Hartshorn

Company Name; SSEN Company Category: DNO At what stage is this document in the process?

01 – Change Proposal

02 - Consultation

03 - Change Report

04 - Change Declaration

Purpose of Change Proposal:

To provide the governance arrangements regarding Distributor Businesses ability to manage consumer devices (such as EV chargers) connected to Smart Meter infrastructure to prevent network overloads in emergency scenarios

Governance:

The Proposer recommends that this Change Proposal should be:



- Treated as a Part 1 Matter;
- Treated as a Standard; and
- Proceed to a Working Group

The Panel will consider the proposer's recommendation and determine the appropriate route.



Impacted Parties: DNOs/ IDNOs and Suppliers



Impacted Clauses: Section 2A, Schedule 8 and National Terms of Connection

Commented [RC1]: Specific location to be determined



Any Contents questions? **Summary** Error! Bookmark not defined. 1 Contact: **Code Administrator** 2 Governance Why Change? 3 DCUSA@electralink 4 **Solution and Legal Text** .co.uk **Code Specific Matters** 02074323000 **Relevant Objectives** 6 Proposer: **Impacts & Other Considerations** 7 6 **Richard Hartshorn** Implementation 6 9 Recommendations 6 richard.hartshorn@ sse.com 01189 534163 Indicative Timeline The Secretariat recommends the following timetable:

Commented [RC2]: We can update this section once we confirm the date this CP will be submitted to Panel.

The Secretariat recommends the following timetable.		
Initial Assessment Report	dd month year	
Consultation Issued to Industry Participants	dd month year	
Change Report Approved by Panel	dd month year	
Change Report issued for Voting	dd month year	
Party Voting Closes	dd month year	
Change Declaration Issued to Parties	dd month year	
[Change Declaration Issued to Authority]	dd month year	
[Authority Decision]	dd month year	



1 Summary

What

Electricity networks in Great Britain were not designed to accommodate the significant additional demand that certain consumer devices (such as electric vehicle (EV) chargers) presents. In some circumstances, Distribution Businesses will be required to act to find a balance between their obligation to operate cost-effective, safe and reliable electricity networks and the need to support customers who wish to adopt low carbon technologies such as EVs.

Whilst the Distribution Businesses are aiming to use market-sourced flexibility services to keep the networks within their limits, there is a need for a system to prevent supply interruptions and/or damage to networks in limited circumstances as a short-term, last resort action in emergency scenarios - i.e. the absence or failure of market-based solutions and where failure to act is likely to cause power outages due to overloads.

There is currently a SEC Modification (SECMP0046 - Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure) progressing the technical aspects of implementing such a system using the Smart Meter infrastructure. The solution discussed at the SEC Working Groups is to use Han Connected Auxiliary Load Control Switches (HCALCS). The HCALCS will be connected to domestic Electric Vehicle chargers, and this modification seeks to allow Distribution Businesses to send the relevant Service Request via the DCC to alter the load on a domestic Electric Vehicle charger. This would be if the Distribution Business detects a potential risk of overloading on a low voltage network.

As this solution involves turning down demand, the governance arrangements surrounding the usage of the technical solution proposed in SECMP0046 should be detailed within DCUSA.

Why

The technical solution proposed is essential to allow for a system to prevent supply interruptions and/or damage to networks in limited circumstances as a short-term, last resort action in emergency scenarios. It is important that this CP progresses in parallel with SEMP0046 to identify the necessary governance arrangements surrounding the usage of the technical solution proposed in SECMP0046.

How

It is envisaged that networks will be identified that may be at risk of future issues. The Distribution Business would then use the market to secure flexibility services from a third party. If these services failed the Distribution Business would investigate this with the service provider to establish the issue. For example, was the failure a one-off anomaly, a server issue, a hack, or a damage to the connection through construction. If a network failure is not found to be the result of network issues such as this, it may represent a wider issue with the market provider. If this were the case, there would be a need for another mechanism to provide the flexibility needed to keep the network within limits.

At this stage, the Distribution Business would contact the relevant customers, explaining the situation and outlining the solutions they propose to use in the short-term and provide details of any longer-term solutions being considered. The aim will be to obtain the customers consent and then inform the Supplier of this agreement and that the Distribution Business will be using the load management feature until a more desirable solution is achieved. The Distribution Business would then report back to the Suppliers, Ofgem and customers on the systems use on an agreed basis.

Commented [RC3]: To agree the frequency



2 Governance

Justification for Part 1 and Part 2 Matter

This Change Proposal should be classed as a Part 1 matter since it:

- 9.4.1 it is likely to have a significant impact on the interests of electricity consumers; and
- 9.4.4 it is directly related to the safety or security of the Distribution Network

Requested Next Steps

This Change Proposal should:

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

3 Why Change?

As stated above, there is currently a SEC modification progressing to propose changes to the SEC to enable electricity Distribution Businesses to use Smart Meter infrastructure to modify Electric Vehicle charging load within a household. This is to avoid the risk of overloading low voltage circuits from secondary substations to properties, and therefore avoid power outages.

If a power outage does occur due to overloading, large numbers of customers may be affected, and for varying amounts of time. The feeders on average will have about 36 households connected but can range from 2-250 properties. Depending on what has failed, it may take from an hour to several weeks to restore the network.

The technical solution proposed is essential to allow for a system to prevent these scenarios as a short-term, last resort action where procured flexibility services have failed. It is important that this CP progresses in parallel with SEMP0046 to identify the necessary governance arrangements needed regarding the usage of the technical solution proposed in SECMP0046.

In a scenario where this technical solution is activated, it is essential that there is established communication lines between the Distribution Business, Supplier and Customers. It is also important that a mechanism is established to ensure that Distribution Businesses report on the usage of this technical solution to both Suppliers and Ofgem on an agreed basis.

4 Solution and Legal Text

Solution and Legal Text

Commented [RC4]: There have been some early discussions regarding where the governance may sit within DCUSA as detailed in the DCUSA SIG minutes circulated on 5th June. We will progress these further at the DIF 59 meeting on 18th June and develop this Section collectively.



5 Code Specific Matters

Reference Documents

SEC Modification proposal SECMP0046 - Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure

6 Relevant Objectives

DCU	SA General Objectives	Identified impact
Pleas	se tick the relevant boxes. (See Guidance Note 9)	·
□ 1	The development, maintenance and operation by the DNO Parties and IDNO Parties of efficient, co-ordinated, and economical Distribution Networks	Positive
2	The facilitation of effective competition in the generation and supply of electricity and (so far as is consistent therewith) the promotion of such competition in the sale, distribution and purchase of electricity	None
□3 -	The efficient discharge by the DNO Parties and IDNO Parties of obligations imposed upon them in their Distribution Licences	Positive
□ 4	The promotion of efficiency in the implementation and administration of the DCUSA	None
□ 5	Compliance with the Regulation on Cross-Border Exchange in Electricity and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None
1.	The change will protect the network and avoid substantial reinforcement works. It will also facilitate an effective process to co-ordinate with Suppliers.	
2.	None	
3.	Distribution Businesses must operate a safe and reliable network, this proposal significantly limits the likehood of overloading which impacts both of these.	
4.	None	
5.	None	

Commented [RC5]: Initial thoughts are that this CP will better facilitate Objectives 1 and 3. We can review and agree this as a Sub-Group.



7 Impacts & Other Considerations

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

As stated above, this CP needs to progress in parallel with SEMP0046 'Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure'.

Vehicle chargers connected to Smart Meter infrastructure'.	
Does this Change Proposal Impact Other Codes?	
Please tick the relevant boxes and provide any supporting information.[See Guidance Note 6]	
BSC	
Consideration of Wider Industry Impacts	Commented [RC6]: To be considered at the DIF 59 Sub- Group on 18th June.
Confidentiality None 8 Implementation	
[TBC]	Commented [RC7]: To be agreed.
9 Recommendations	
The Code Administrator will provide a summary of any recommendations/determinations provided by the Panel in considering the initial Change Proposal. This will form part of a Final Change Report.	Commented [RC8]: Any recommendations received from the DCUSA Panel once this CP has been submitted will be added here.
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