



## **DCUSA CONSULTATION**

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### DCP 090 – NESTED NETWORKS

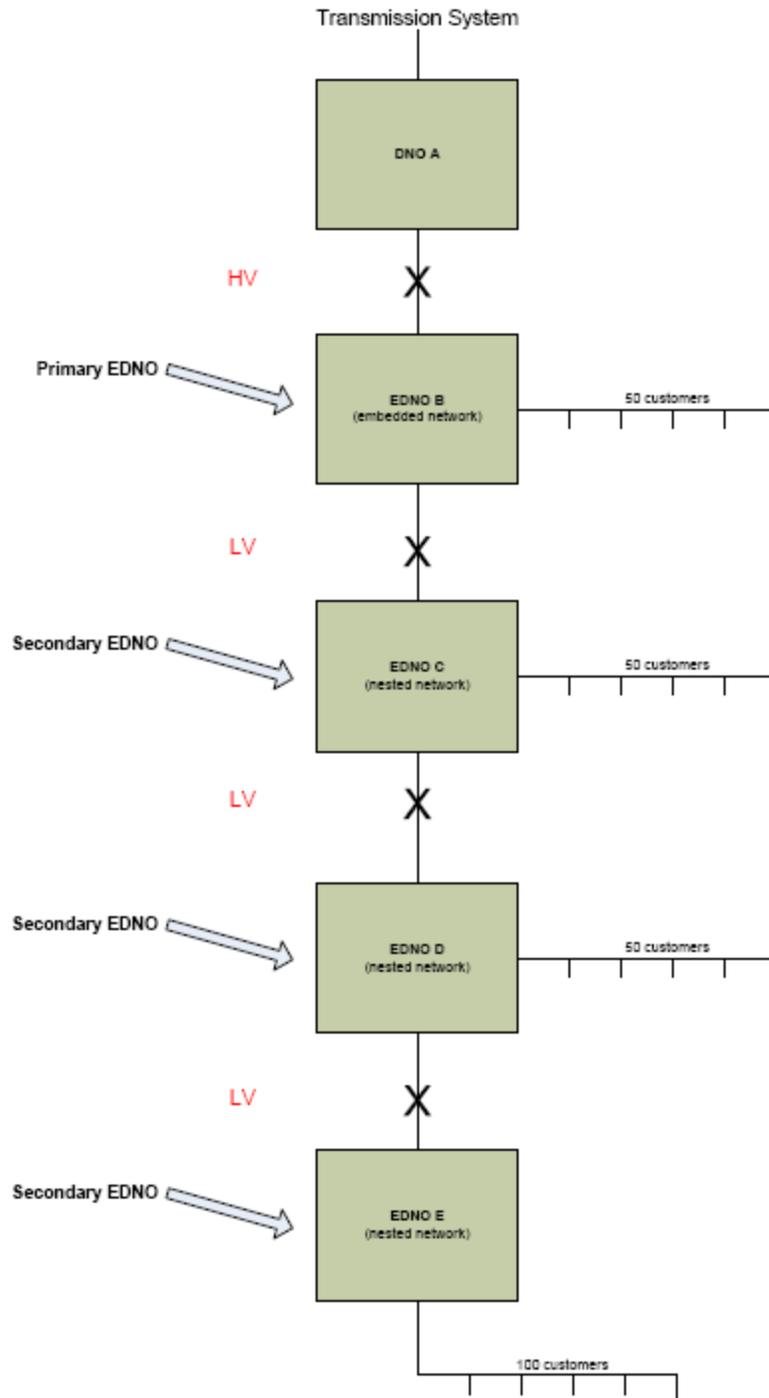
## **PURPOSE**

- 1.1 The Distribution Connection and Use of System Agreement (DCUSA) is a multi-party contract between electricity Distributors and electricity Suppliers and large Generators. Parties to the DCUSA can raise Change Proposals (CPs) to amend the Agreement with the consent of other Parties and (where applicable) the Authority.
- 1.2 This document is a consultation issued to DNO and IDNO Parties, Consumer Focus and the Authority in accordance with Clause 11.14 of the DCUSA seeking industry views on DCP 090 'Nested Networks'.
- 1.3 Parties are invited to consider the proposed drafting set out as Appendix A and submit comments using the form attached as Appendix B to [dcusa@electralink.co.uk](mailto:dcusa@electralink.co.uk) by 22 August 2011.

## **2 DCP 090 – NESTED NETWORKS**

- 2.1 DCP 090 seeks to create a new schedule in the DCUSA which will put in place charging arrangements between Embedded Distribution Network Operators (EDNOs) for 'nested networks' distribution systems. 'Nested network' means one or more EDNO's Distribution Systems that are connected upstream to an EDNO Distribution System connected to a DNO's Distribution System.
- 2.2 In April 2010 DCP 060 - Introduction of Portfolio Billing Alternative Solution, introduced the term Embedded Distributor Network Operator (EDNO) and is described in Schedule 19 of DCUSA which covers how Distributor Network Operators (DNOs) bill EDNOs for Use of System Charges. However, if an EDNO installs assets to vary the voltage level of the network there is currently no standardised approach for the EDNO to recover Use of System Charges.
- 2.3 The diagram below illustrates this scenario: DNO "A" connects to the EDNO "B" at HV. EDNO "B" connects to EDNO "C" at LV. EDNO B has installed assets to transform down from HV to LV. All the EDNOs will have charged the Supplier based on LV tariffs. The DNO will have recovered Use of System Charges based on HV tariffs from all EDNOs. EDNOs C, D and E currently have benefitted in charging a higher price for Use of System Charges at the expense of EDNO "B"

who installed the assets.



2.4 DCP 090 looks at how a charge should be introduced and how the data would be provided so that a consistent approach is adopted by all affected Parties. It also considers how more complex network connectivity models can be

facilitated.

2.5 In order to understand how the billing of these scenarios is proposed, the legal text for the CP (set out in Appendix A) expands upon the EDNO term and creates two further terms: a Primary EDNO and a Secondary EDNO.

- A Primary EDNO is one which installs transformers and associated equipment to move from one voltage level to another e.g. HV to LV.
- A Secondary EDNO is one that has their Distribution System connected downstream of such assets.

2.6 To complete the definitions there will be a new term called "Nested Network".

2.7 A Nested Network is an embedded Distribution System connected to another embedded Distribution System which is then connected to the DNOs Distribution System. In the diagram above there are three Distribution Systems considered to be part of the Nested Network, these are EDNO C, D and E.

2.8 The principles agreed by the Working Group are as follows:

- The EDNO installing the assets to reduce the voltage of the Distribution System will become a Primary EDNO.
- The Primary EDNO will bill all the Secondary EDNOs.
- The Primary EDNO will be identified within each Bilateral Connection Agreement (BCA) cascaded down by each Secondary EDNO.
- Data should be provided by each Secondary EDNO to the Primary EDNO based on:
  - NHH – a subset of the portfolio billing data received from the DNO
    - The number of MPANs associated with each Settlement Class that are connected in a Nested Network will be identified.
    - The units used for each Settlement Class (LLFC, PC, SSC, TPR combination) within the Nested Network will be calculated by dividing the number of MPANs in the Nested Network on such a Settlement Class by the number of MPANs billed by the DNO on that Settlement Class multiplied by the number of units for that Settlement Class.

- HH – billed data sent to the Supplier.
  - In both NHH and HH instances where there is more than one Primary EDNO identified, the data will be split based on the connectivity model of the Distribution System back through the various systems to the Primary EDNOs Distribution System.
- 2.9 Based on the above, EDNO B will be the Primary EDNO and EDNOs C, D & E will be the Secondary EDNOs.
- 2.10 It is important that when a Nested Network is identified this is captured in the Bilateral Connection Agreement either at the time or through variation. It is also important to recognise when there is a Primary EDNO and this is equally cascaded down through the BCA's.
- 2.11 It will be essential that EDNOs understand what MPANs are associated with each Connection Point and be able to identify what Settlement Class each MPAN is associated with. When a Nested Network occurs they will then be able to understand the number of MPANs and their Settlement Class. This data is then used against their total portfolio of MPANs in that GSP Group to determine the units used.
- 2.12 Below is an example of how the number of units is calculated. Within the bill that is received from the DNO:
- EDNO D has 500 MPANs on Settlement Class XX.
- The total units used for this Settlement Class was 1,000,000.
- Of these 500, 50 are in the Nested Network as shown in Diagram A.
- 2.13 Therefore the number of units attributed to the Nested Network will be  $50/500 * 1,000,000 = 100,000$ .
- 2.14 For the HH sites, the data that is sent to the DNO is also sent to the Primary EDNO. The DNO will charge at the HV tariff rate, and the Primary EDNO will charge the difference between the HV and LV tariff rates.

### **3 CONSULTATION**

#### 3.1 Parties are asked to consider the following questions:

- Do you understand the intent of DCP 090 and are you supportive of its principles?
- Do you consider that the proposal better facilitates the DCUSA objectives?
- Do you have any comments on the proposed legal text?
- Are the proposed solutions set out in the legal text manageable?
- Do you understand the terminology set out in the legal drafting, or does it need more clarity?
- Is the drafting unambiguous? Do you think that everyone would be consistent in their interpretation of the approach to address nested networks?
- Is the diagram set out in the legal drafting helpful?
- Please indicate the likely level of costs the proposed solution may have?
- Are the costs justified? Provide a cost/benefit analysis as support to this question.
- If not, what volume would make it necessary?
- Are there alternative ways of addressing nested networks which you feel would be more cost effective?
- Will this work for all possible scenarios of nested networks?
- Are there any unforeseen issues that haven't been addressed?

- 3.2 Responses should be submitted using Appendix B to [DCUSA@electralink.co.uk](mailto:DCUSA@electralink.co.uk) no later than **22 August 2011**.
- 3.3 Responses, or any part thereof, can be provided in confidence. Parties are asked to clearly indicate which parts of the response are to be treated confidentially.

#### **4 NEXT STEPS**

- 4.1 Following the end of the consultation period, the responses will be reviewed by the DCP 090 Working Group. The Working Group will then determine the progression route for the CP.
- 4.2 If you have any questions about this paper or the DCUSA Change Process please contact the DCUSA Help Desk by email to [DCUSA@electralink.co.uk](mailto:DCUSA@electralink.co.uk) or telephone 020 7432 3011.

#### **5 APPENDICES**

- 5.1 Appendix A – DCP 090 Legal Drafting
- 5.2 Appendix B – Response Form