



Agenda



09:00-10:15hrs DSO TEG meeting final discussion on changes made to NC and support documents

10:15-10:30hrs Coffee break

10:45-12:30hrs DSO TEG meeting final discussion on changes made to NC and support documents

12:00-13:00hrs Lunch break

13:00-15:15hrs User group meeting final discussion on changes made to NC and support documents

15:15-15:30hrs Coffee break

15:30-17:00hrs User group meeting final discussion on changes made to NC and support documents



Agenda



- DSO TEG comments on revised code and support documents including ENTSO-E response to DSO TEG Comments on draft NC DCC (version of 24 October 2012)
- 2. ENTSO-E further changes to DSO TEG responses from DT meeting
- 3. Next Steps



DSO TEG: Should cost effective dispatch be paid for by users for TSO driven tests which do not prove to show the results shown

ENTSO-E: Add in 'efficient and sufficient' same as paragraph a) to paragraph b) in Art 39(3)

DSO TEG: Art 49.1). a. Connection point could be connection points in DN connections check text

ENTSO-E: change from 'to the connection point' to 'to each connection point'

DSO TEG: Change aggregator to demand aggregation in Art 22 or add in defined term?

ENTSO-E: In Art 22. o) change 'an aggregator' to 'Demand Aggregation'

DSO TEG: Need to incorporate 2 seconds into definition of DSR VFAPC or delete

ENTSO-E: Delete in definitions and move to Art 24 explicitly as less than 2 seconds



DSO TEG: **Article 9** – Regulatory aspects

o 9.4. paragraph has not been deleted as asked by DSOs. All agreements between DSOs and Demand facilities will be made according to the national legislation, which takes into account this principle. In this sense, the Art 9.4 is obvious and should be removed.

ENTSO-E: Not sure of consistent application across Europe, however national law may change and therefore to ensure that current position apply in Code

DSO TEG: o TSO defines, without coordination/agreement with Transmission connected Demand Facilities and Transmission Connected Distribution Networks. New is however that they are better informed à not enough. Remaining burden for DSOs and grid user, minimalisation of short circuit current to be included.

ENTSO-E: Change in Art 15 1.a. improvement by adding 'the maximum value *at the Connection Point...*' - reduces application across network. Design limit in many cases so minimisation not really aspplicable?

DSO TEG: o 16.1.a)2) there is no protection against stronger requirements set through other methods (such as Qmax value....). This article should be phrased as the use of other methods (tangent (phi),.... with equivalent level of requirement....

ENTSO-E: OK, extra wording to be added



DSO TEG: o 24.1.c) Regarding definition of performance parameters, DSOs asked for adding 'in agreement with RNO', but this was not added.

ENTSO-E: Agreed by DT add in revised wording

DSO TEG: **Article 46** – Compliance simulations for Reactive Power ranges of Transmission Connected Distribution Networks

o 46.b. Paragraph added: 'The TSO shall have the right to specify the method for compliance simulation of the active control of Reactive Power as defined in Article 16 (1) c) where provided.' To be added in conformity with Art 9.30

ENTSO-E: DT will make reference to Article 9(3).

DSO TEG: **Article 25** – Power Quality

o No reference added to approval by NRA, as asked by DSOs. àpersisting unclear relation with existing international standards and "Quality of supply obligations" of the DSO

ENTSO-E: DT will make reference to Article 9(3).



DSO TEG: **Article 36** – General provisions (regarding Operational Notification Procedure for Existing Demand Facilities or Existing Distribution Network Connections)

o 36.5. Further elaboration of the text concerning the socio-economic benefits of applying requirements to Existing Demand Facilities and Existing Distribution Networks. Also transition period introduced. This is a step in the right direction however two years are too short for adaption of an existing distribution grid àtransition period needs to be evaluated as part of the CBA analysis and decided by NRA. Socio economic benefit as criterion but cost coverage for DSOs has to be ensured?

ENTSO-E: FWGL applies, generally within 2 yrs, derogations can be applied for if necessitated.



Changes proposed in addition to response sent – Reactive Power Proposal [Fri 9th 2012]

DSO TEG Request :Art. 16.1.a

[...] For Transmission Connected Distribution Networks, the relevant TSO and the DSO shall analyse jointly the efficient technical and financial possible solutions and determine jointly the optimal solution for reactive power exchange between their networks taking adequately in consideration the specific network characteristics, variable structure of power exchange and bidirectional flows and the reactive capabilities from generators in the distribution grid. In case of disagreement the actual Reactive Power range shall not be wider than 0.9 Power Factor of the larger of their Maximum Import Capability or Maximum Export Capability in import to 0.9 Power Factor of their Maximum Export Capability in export while respecting provisions of art 9.3. [...]

We propose the same rewording of Art. 16.1.b

Entsoe Adaption: For Transmission Connected Distribution Networks, the actual Reactive Power range specified by the Relevant Network Operator shall not be wider than 0.9 Power Factor of the larger of their Maximum Import Capability or Maximum Export Capability in import to 0.9 Power Factor of their Maximum Export Capability in export, except in situations where either technical or financial system benefits are demonstrated by the Relevant TSO and the DNO through joint analyse.

This scope of the analysis will be agreed between the Relevant TSO and DNO and will consider the possible solutions and determine the optimal solution for reactive power exchange between their networks taking adequately in consideration the specific network characteristics, variable structure of power exchange, bidirectional flows and the reactive capabilities in the distribution grid, while respecting the provisions of Article 9(3);

DSO TEG Request : The Relevant TSO <u>and the DSO</u> shall have the right to require.... Reciprocity is needed.

Entsoe Adaption: DT considers that the right to reciprocity is needed and propose to write a clause to give the DSOs the right to apply to the TSO to consider their network for dynamic reactive exchange control



Next steps



- 1. ENTSO-E continue to work on refining code and documents including accepted wording of DSO comments
- 2. ENTSO-E to support Art on cost recovery very important to DSO TEG as discussed in Monday meeting
- 3. ENTSO-E to put emphasis in supporting documents impact to distribution networks protection schemes as result of embedded generation and DSR
- 4. ENTSO-E will continue to develop DSR position with EC/ACER

5. DSO TEG to publically fully support final code?

