Minutes of Meeting

*Drafting Team on Demand Connection Code (DT DCC)*

*DSO Technical Expert Group (DSO TEG)*

06th July 2011, Helsinki

## Attendance

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**Agenda**

6th July

10:30-10:35hrs Approve Agenda

10:35-11:00hrs Outline DT and Network Code ToR and discuss with DSO’s

11:00-11:30hrs TSO presentation on principles for Network Code

11:30-11:45hrs Coffee break

11:45-12:30hrs Allotted time for DSO’s to set out their own thoughts on principles

12:30-13:30hrs Lunch break

13:30-14:00hrs Outline of work programme and agreement with DSO

14:00-14:30hrs Outline of critical risks and their agreement

14:30-15:45hrs Discuss best methods for interaction to reach common proposal

15:45-16:00hrs Coffee break

16:00-16:30hrs Agree actions and next dates, and DSO/TSO work programme

1 – Agenda was approved

Agenda was approved
DT and DSO TEG made their introductions.

Initial discussion on roles and responsibilities of both the DSO and TSO’s in operating and managing their networks.

DSO TEG concerns about overlaps between operational requirements and functional requirements in the code. DT DCC clarified that the code was to set out only functional requirements; the use of these functional requirements is a Relevant System Operator issue. DT DCC also stated that the functional requirements in this code are for cross border issues only, the definition of which will be in line with the Requirements for Generators (RfG) draft code, which has been drafted for this code and will be circulated to DSO TEG.

DSO TEG asked if Operational codes are drafted and whether they may be circulated.

DSO TEG noted that they had structural problems with the development of the FWGL and hence Network Code with regard to the responsibility of TSO/DSO for compliance testing. They outlined that they believed compliance testing should be performed by the party that needs and hence sets the requirement[s] in the code, i.e. Frequency related requirements should be the responsibility of TSO’s with regard to compliance testing.

The DSO TEG also stated their concern that the use of type testing a commonly used tool by DSO’s to ensure compliance is retained. This was noted as not only a requirement for demand customers but also generators. The DT set out that in line with the network code on Requirements for Generators, the Demand Connection Code should use type testing as a valuable tool to ensure compliance of the smaller mass generator and demand users.

DSO TEG also discussed with DT their application of existing Standards to ensure compliance by users to their requirements for connection. DSO TEG explained that not setting out requirements to remain within these standards will present an issue for maintaining this approach and/or restriction in the use of certain technologies. DT set out the principles for a functional requirement is just that, it must be an absolute requirement for the system operators to be able to perform their duties to operate the network in a safe, secure, efficient, economical manner with due care for the environment, and simultaneously deliver the European objectives in renewables, market integration and security of supply.

It was agreed by both DT and DSO TEG that practically achievable functional requirements are of the highest priority in order to operate the network. However, it was also agreed that regardless of this fact that standards mainly in use by system operators provide a valuable source of information and where possible, requirements should take cognisance of use these to avoid unnecessary conflicts. DSO TEG noted that with regard to ‘Smart Grids’, Mandate 490 would be a good standard to use as a foundation.
DT and DSO TEG discussed whether there should be one code for the entire FWGL or a number of codes. DSO TEG set out concerns for overlap between codes i.e. Demand Connection Code (DCC) and the Requirements for Generators (RfG). DT set out rational for a number of codes, based on practicality, timely delivery, EC programme and agreed time frames allowed (1yr per code), and that proposal had been accepted and published by EC/ACER. DT/DSO TEG agreed that the concept of separate codes was established and that DCC should progress as per ToR to be agreed.

Specific points raised by DSOs representatives:

1. Is a separation between consumer and generator network codes pertinent considering the development of very small generation and the rise of “prosumers”?

2. DSOs shouldn’t be considered as large consumers, since their role is not and will be less and less to collect consumption but to manage locally the relation between consumption and generation.

DT and DSO TEG discussed and agreed the ToR (subject to any changes required due to final FWGL on Grid connection) and made some small changes. See appendix 1.

| DT DCC – Send revised ToR and draft of section on definition of cross border issues |
| DT DCC – Ask about draft of operational codes and their provision to DSO TEG to assist in producing DCC |
| DSO Organizations to consider whether they wish to add their team members to ToR and respond in advance of next meeting |

3 - TSO presentation on principles for Network Code

DT DCC presented principles for the network code from TSO’s prospective.

DSO TEG members’ opinions differed on the relationship of DSOs with this code - whether they are only system operators and customers, or only system operators in the DCC.

DSO TEG noted that their agreement with the requirements in the DCC would not be sufficient in their organisations to guarantee that their members would not challenge the requirements in a public consultation. The DSO TEG committed to asking their organisations if they could recommend the requirements to the wider membership.

| DT DCC to provide presentation to DSO TEG |
| DSO TEG to finding out if the requirements in the DCC could be recommended to their wider membership and would revert to DT within the next week on how this might be progressed. |

4 - Allotted time for DSO’s to set out their own thoughts on principles

DSO organisations had no further comments to add beyond previous discussions.
5 - Outline of work programme and agreement with DSO

DT and DSO TEG representatives discussed work programme and content. DSO TEG agreed that their own internal sign off requirements should be added to work programme.

Work programme agreed subject to review post finalisation of FWGL.

| DSO Organizations to add to work programme their internal sign off stages |

6 - Outline of critical risks and their agreement

DT and DSO TEG discussed amended and agreed draft of critical assumptions. Some items agreed but not drafted in meeting (dividing risks into code production and application). These will be circulated for approval post meeting for next meeting.

| DT DCC to update critical assumptions with agreed changes and circulate to DT/DSO TEG for confirmation on the wording of the changes |

7 - Discuss best methods for interaction to reach common proposal

DT and DSO representatives agreed method of working presented by DT DCC as follows:

- Discuss the topics progressively in a series of principle meetings with the DSO TEG

  The DT/DSO TEG will discuss each topic set their views on what each requirement should cover/not cover, the measure to be used, and how the requirement should be defined. Thresholds where possible should be agreed at this stage, otherwise the principle[s] used to set the threshold should be agreed. The threshold principles should set out whether the threshold is to be European/Synchronous system/National/etc defined and based on harmonisation of existing European requirements, functional analysis performed on needs of a country[s] or synchronous system, use of an existing standard, etc.

- ENTSO-E DT DCC will draft relevant sections of code post discussion

  DT will take principles and develop into draft requirements

- Consult with DSO TEG on draft sections

  The DT/DSO TEG will be circulated the draft wording of the requirements to be reviewed in advance of the meeting (1wk+ typically), and in the meeting the draft requirement will be reviewed line by line, discussed and modified as required.

  Once agreed in the meeting by DT/DSO TEG the wording will taken as accepted and not reopened by DT/DSO TEG, unless requirement identified as needing further work post third party consultation.
Hence each DSO’s meetings will be in two parts:

1st Part - Newly created draft sections of code from last meeting to be discussed, amended and agreed

2nd Part - Next topics in code for high level discussion in advance of DT DCC drafting of the agreed principles for next DT/DSO TEG meeting

8 - Agree actions and next dates, and DSO/TSO work programme

DT/DSO TEG meeting dates agreed as:

6th July - Helsinki

14th Sept – Paris (back up date 13th)

Oct 14th – Brussels (Provisional to be used if needed)

4th Nov – Brussels (back up date 3rd)

29th Nov – Amsterdam (Provisional to be used if needed, back up date 28th)

Actions:

DT DCC – Add into issues log about quality of supply and need for further discussion

DT DCC – Add standing item to agenda on documents that can be released to parties outside of DSO TEG/WG EPS

DT DCC - Add standing item to agenda on when to go to consultation on parts of the code with stakeholders

DSO TEG – Send on copy of Draft Standard 490 to DT for consideration of its implications
Appendix 1.

Scope of the Demand Connection Code Drafting Team

Introduction

The purpose of this Drafting Team is to consider the European Demand Users requirements derived from the Framework Guidelines, currently in draft form issued by ACER on ‘Electricity Grid Connections’ 3rd March 2011, and formulate a corresponding Draft Network Code for ENTSO-E.

The Drafting Team has been formed by WG EPS within ENTSO-E to complete this task.

Objective and scope of the Drafting Team

The main objectives of the team are to formulate the requirements that must be met for the connection of Demand Users. This covers Demand customers\(^1\) (including Industrial) connected to both Transmission and Distribution and Distribution System Operators.

These requirements are to be functional in nature defining capabilities in performance terms and build upon the high level requirements set out in the ACER Framework Guidelines on ‘Electricity Grid Connections’ 3\(^\text{rd}\) March 2011.

The requirements identified in the Framework Guideline to date may be summarised as:

- Frequency and voltage parameters;
- Demand Management Capabilities
  - Load shedding
- Requirements for reactive power;
- Load-frequency control related issues;
  - Low Frequency Disconnection
  - When this occurs
  - Why it is used
- Short-circuit current;
- Quality of supply
- Requirements for protection devices;
- Balancing capabilities and provision of ancillary services;
- Equipment requirements at connection point;
- Disconnection/Islanding/Reconnection
  - Methods/Procedures
- Instructions provide by TSO/DSO to user;
  - Manual/Auto
  - How they are provided/received

\(^1\) Only Demand customers which can produce cross border issues
To avoid reworking and/or inconsistencies where possible this Network Code should align and make use of the Requirements for Generators Draft Network Code content and requirements.

The principles set out in the Framework Guideline are that operational issues are dealt with in Operational Codes produced by ENTSO-E and only functional requirements necessary to meet the needs of secure operation of the Transmission network[s] are to be dealt with in the Network Code. Also only requirements of a cross border nature apply.

Other Network Codes (3) will deal with the process of producing connection offers for Demand Users, Requirements for Generators and HVDC circuits.

**Drafting Team Expected outputs**

The output of the DT DCC is the following:

a) A Draft Network Code on the requirements for connection of Demand facilities in Europe, Including both Industrial and DSOs.

b) Presentations and supporting material for the Draft Network Code.

c) Internal/external agreement on the definition and threshold[s] of Demand Customers with a cross border impact

d) Stakeholder due process fulfilled, i.e. workshops, responses to comments received, etc

**Schedule**

The schedule will be in line with the schedule submitted to the WG EPS on the 19th May 2011.

Any changes to the scheduled delivery dates for the network code will be agreed with the WG EPS. Proposed changes to the schedule should be submitted to the WG EPS at the earliest opportunity.
Team

The team shall include members of WG EPS to be selected by WG and agreed with the Convener of the Drafting Team DCC. The team shall include:

- at least two technical experts in the field of demand connections,
- at least two members of WG EPS
- at least one legal advisor
- at least one member of the secretariat
- an appointed secretary for the group
- a designated deputy convener appointed by the DT convener
- a representative from each synchronous network area

Current Members:

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