

## Minutes of Meeting

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

### *DSO Technical Expert Group (DSO TEG)*

06<sup>th</sup> July 2011, Helsinki

#### Attendance

Name	Company	E-mail	Attending
<b>DT DCC:</b>			
Mark Norton	EirGrid	<a href="mailto:Mark.Norton@Eirgrid.com">Mark.Norton@Eirgrid.com</a>	Yes
Anders Danell	Svenska Kraftnät	<a href="mailto:Anders.Danell@svk.se">Anders.Danell@svk.se</a>	Yes
Stephanie Bieth	RTE	<a href="mailto:stephanie.bieth@rte-france.com">stephanie.bieth@rte-france.com</a>	Yes
Bastian Homburg	Amprion	<a href="mailto:bastian.homburg@amprion.net">bastian.homburg@amprion.net</a>	No
Kees Jansen	Tennet	<a href="mailto:Kees.Jansen@tennet.eu">Kees.Jansen@tennet.eu</a>	Yes
Mikko Koskinen	Fingrid	<a href="mailto:mikko.koskinen@fingrid.fi">mikko.koskinen@fingrid.fi</a>	Yes
João Moreira	REN	<a href="mailto:joao.moreira@ren.pt">joao.moreira@ren.pt</a>	Yes
Sergio Pasero Ruiz	REE	<a href="mailto:spasero@ree.es">spasero@ree.es</a>	No
Dimitrios Chaniotis	ENTSO-E		No
Helge Urdal	National Grid	<a href="mailto:helge.urdal@uk.ngrid.com">helge.urdal@uk.ngrid.com</a>	Yes
<b>EURELECTRIC DSO:</b>			
Bruno Gouverneur	Synergrid - BE	<a href="mailto:Bruno.Gouverneur@synergrid.be">Bruno.Gouverneur@synergrid.be</a>	Yes
Riccardo Lama Head of Electric Network Planning	Enel Distribuzione – IT	<a href="mailto:riccardo.lama@enel.com">riccardo.lama@enel.com</a>	No
Jacques Merley Chef de Département, Direction Réseau - Développement du Réseau	ERDF - FR	<a href="mailto:jacques.merley@erdfdistribution.fr">jacques.merley@erdfdistribution.fr</a>	Yes
Siegfried Wanzek	E.ON - DE	<a href="mailto:siegfried.wanzek@eon-energie.com">siegfried.wanzek@eon-energie.com</a>	Yes
Graeme Vincent	Scottish Power Energy Networks – UK	<a href="mailto:Graeme.Vincent@ScottishPower.com">Graeme.Vincent@ScottishPower.com</a>	No
Pavla Mandatova	Eurelectric DSO	<a href="mailto:pmandatova@eurelectric.org">pmandatova@eurelectric.org</a>	Yes
<b>GEODE:</b>			
Mike Kay	Planning and Engineering Director a Electricity North	<a href="mailto:Mike.Kay@enwl.co.uk">Mike.Kay@enwl.co.uk</a>	No

	West (UK)		
Walter Schaffer	Salzburg Netz GmbH - AT	<a href="mailto:walter.schaffer@salzburgnetz.at">walter.schaffer@salzburgnetz.at</a>	No
Johan Lundqvist technical expert / Sylvia Michel	Svensk Energi (Sweden)	<a href="mailto:johan.lundqvist@svenskenergi.se">johan.lundqvist@svenskenergi.se</a> <a href="mailto:sylvia.michel@svenskenergi.se">sylvia.michel@svenskenergi.se</a>	Yes
<b>CEDEC:</b>			
Herman Poelman Senior Consultant Regulation	Alliander (NL)	<a href="mailto:herman.poelman@alliander.com">herman.poelman@alliander.com</a>	Yes
Marc Malbrancke Deputy Director	INTER-REGIES (BE)	<a href="mailto:marc.malbrancke@inter-regies.be">marc.malbrancke@inter-regies.be</a>	Yes

## Agenda

6<sup>th</sup> 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 rationale 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:

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

2<sup>nd</sup> 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:

6<sup>th</sup> July - Helsinki

14<sup>th</sup> Sept – Paris (back up date 13<sup>th</sup>)

Oct 14<sup>th</sup> – Brussels (Provisional to be used if needed)

4<sup>th</sup> Nov – Brussels (back up date 3<sup>rd</sup>)

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

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' 3<sup>rd</sup> 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<sup>1</sup> (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<sup>rd</sup> March 2011.

The requirements identified in the Framework Guideline to date maybe 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

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<sup>1</sup> Only Demand customers which can produce cross border issues

- Information/Data exchange
  - What is required
  - By whom
  - When
  - How it is provided
- Compliance;
  - What is tested
  - How testing takes place
  - Stages of Compliance testing
- Derogation;
  - What it is
  - Whom it applies to
  - How it is applied
  - Exemptions
- Enforcement period
  - No longer than 3 years

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 19<sup>th</sup> 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:

Mark Norton Convener	EirGrid
Anders Danell	Svenska Kraftnät
Stephanie Bieth	RTE
Bastian Homburg	Amprion
Kees Jansen	TenneT
Mikko Koskinen	FinGrid
João Moreira	REN
Sergio Pasero Ruiz	REE
Francisco Reis	ENTSO-E
Helge Urdal	National Grid GB

