

**Minutes of Meeting**  
**ENTSO-E Drafting Team on DCC**  
**DSO Technical Expert Group**

**Date:** 19 April 2012  
**Time:** 9h00 – 12h00  
**Place:** Hotel Martins Central, Brussels

**Participants**

Name	Affiliation	present	excused
<b>DT DCC</b>			
Hans Abele	Transnet BW	X	
Gianluca Albanese	Terna		X
Stephanie Bieth	RTE	X	
Anders Danell	Svenska Kraftnett		X
Roberto Gnudi	Terna	X	
Edwin Haesen	ENTSO-E	X	
Bastian Homburg	Amprion	X	
Kees Jansen	Tennet		X
Mikko Koskinen	Fingrid		X
João Moreira	REN		X
Mark Norton	EirGrid	X	
Sergio Pasero Ruiz	REE	X	
Juergen Schmitt	swissgrid	X	
Dwayne Shann	National Grid	X	
Guillemette Smadja	Elia / LRG		X
Helge Urdal	National Grid	X	
<b>DSO TEG</b>			
Pierre Andersson EK	E.ON Elnät Sverige AB (Eurelectric DSO)		X
Pilar Barrera	Bewag Netz (Eurelectric DSO)		X
Alberto Cerretti	Enel Distribuzione (Eurelectric DSO / EDSO-SG)		X
Florian Chapalain	EDSO-SG	X	
Falk Engelmann	VKU (CEDEC)		X
Bruno Gouverneur	Synergrid (Eurelectric DSO)	X	
Mike Kay	ENWL (Geode)		X
Riccardo Lama	Enel Distribuzione (Eurelectric DSO)	X	
Mika Loukkahti	Helen Sähköverkko Oy (Eurelectric DSO)		X
Johan Lundqvist	Svenskenergi (Geode)	X	
Marc Malbrancke	Inter-Regies (CEDEC)	X	
Pavla Mandatova	Eurelectric DSO	X	
Javier Meco	Endesa (EDSO-SG)	X	
Jacques Merley	ERDF (Eurelectric DSO)	X	
Viktoria Neimane	Vattenfall R&D (Eurelectric DSO)		X
Joachim Nilges	RWE (Eurelectric DSO)		X
Piotr Ordyna	Tauron (EDSO-SG)		X
Allan Norsk Jensen	DEA (Eurelectric DSO)	X	
Jesus Peco	Iberdrola (EDSO-SG)	X	
Herman Poelman	Alliander (CEDEC / EDSO-SG)	X	
Graeme Vincent	Scottish Power (Eurelectric DSO)	X	
Jarmo Saarinen	Fortum Oyj (Eurelectric DSO)		X
Walter Schaffer	Salzburgnetz (CEDEC)		X
Bilal Simsek	TEDAS (Eurelectric DSO)		X
Siegfried Wanzek	E.ON-Energie (Eurelectric DSO)	X	

## 1. Agenda

Proposed agenda:

- 09:00-09:30hrs Review of status of NC DCC, process, time line, etc
- 09:30-10:30hrs Changes in code as a result of SDC decision
- 10:30-10:45hrs Coffee break
- 10:45-11:15hrs Changes in code as a result of SDC decision
- 11:15-11:45hrs Open discussion on outcome from workshop on the 18th
- 11:45-12:00hrs Agree actions and next dates, and DSO/TSO work programme

Additional topic proposed by the DT on reactive power exchange capabilities.

Additional topic proposed by the DSO TEG on the synchronization of RfG and DCC, focusing on the topic of frequency withstand capabilities as described in the DCC – Call for Stakeholder Input

Agenda and additional topics approved.

## 2. Status and DCC work program

ENTSO-E recently published a Call for Stakeholder Input in the development of the DCC code. The DT acknowledges that although the DSO TEG was informed of the planned process, due to time constraints there was unfortunately no time to discuss the specific content (case studies and listed questions) with the DSO TEG. The DT still aims at keeping a close interaction with the DSO TEG in the development of the DCC.

The DSO TEG asks that ENTSO-E takes sufficient time to assess the responses to the Call for Stakeholder Input.

## 3. Reactive power exchange between distribution and transmission networks

(see slides)

The proposal by the DT allows for TSO and DSO to come to a bilateral agreement (in line with the national legal framework) to have an active mode at the T/D interface. This mode defines a reactive power area in the PQ operation diagram, taking into account the actively controllable reactive capability of the DSO network. In passive mode the reactive power capability at the T/D interface would be set in a given reactive power range (as discussed and agreed in earlier meetings).

DSO TEG makes a nuance that some DSOs operate at voltage levels of 110kV and above with bulk generation connected which means these networks were rather 'active' in the past as well.

The DSO TEG notes that when reactive power is being 'pushed' from one connection point to another, this should not be in conflict with other constraints at the T/D interface. It is also noted that there may be long-term negotiated contracts with better conditions already.

Some DSO TEG members agree with an absolute value (in MVar) on reactive power exchange capabilities instead of a relative value (in power factor).

DSO TEG asks how cross-border reactive power exchange between TSOs is settled in a network code. This is not in scope of the Demand Connection Code. It might be in scope in an operational code.

The DSO TEG asks how T/D reactive power exchange capabilities are considered as being a cross-border issue. The DT responds this is a relevant and needed capability in the context of future generation portfolios including long distance power transmission. In absence of local generation there may be viable need for local level reactive power compensation to support this long distance transmission.

The proposal of an active mode for reactive power exchange areas is understood as being a capability, not an operational requirement in the context of this network code.

Incentives to opt for this type of active mode might be relevant, but will not be prescribed in this code.

The DSO TEG and DT agree that this type of requirement should not be too prescriptive, leaving the details to be agreed on at the national level.

Some DSO TEG members ask for this type of requirement to be not included at all in a European network code, leaving the option completely to the national level and bilateral agreements.

The DSO TEG notes that a reactive power capacity might also be used for other purposes at distribution level. This needs to be taken into account if in a connection procedure a certain capability needs to be present. It might not be available for its objective when called upon.

Some DSO TEG members ask to include distribution to distribution interfaces in this type of requirement. If not, a DSO might not be able to meet the requirement at the T/D interface. ENTSO-E is not opposed to the concept and awaits response from the DSO TEG in this regard. Some DSO TEG members consider distribution to distribution interface requirements to be a matter of national legislation only.

The DT's initial proposal includes a 5% (of active power) reactive power tolerance band in this active mode. The DSO TEG considers too onerous. All agree make the requirement more general.

The DT and DSO TEG agree on the general formulation of

*"The TSO shall have the right where justified to require from the Transmission Connected Distribution Networks to actively control the exchange of reactive power at the interface connection point as part of a wider common concept for management of reactive power capabilities for the benefit of the entire network pursuant to article 4(3). The method of this control should be agreed between the TSO and the Distribution Network to ensure the justified level of security of supply for both parties. The justification will include a roadmap in which the steps and the timeline for fulfilling the requirement are described."*

Two remarks are made on the other clauses dealing with reactive power exchange capabilities for transmission connected distribution networks:

- The DSO TEG notes that e.g. in Denmark a reactive power exchange range for T/D interfaces exists for a zone, i.e. an aggregation of connection points instead of at an individual T/D interface. All agree this is covered by including *"Use of other methods than a power factor can be decided by each TSO in situation with either technical or financial system benefits pursuant to Article 4 (3)."*
- An earlier agreed clause on local compensation of cable networks at low load is clarified and agreed on as *"Transmission Connected Distribution Networks shall have the capability at the connection point to maintain 0Mvar exchange at nominal voltage (with a deadband of 5% of active power of Maximum Import Capacity) for a load exchange of no higher than 25% of the Maximum Import Capacity."* Some DSO TEG members propose a wider range than 5%, e.g. 20%. The DT considers 20% to be too wide as its objective would be not met.

#### **4. General feedback on workshop public workshop of 18 April**

The DT notes that positive responses were received after the workshop by participants and that the clarification in the presentations and Q&A sessions was appreciated.

The DSO TEG agrees that the objective of the Call for Stakeholder Input is clear, as are the posed questions. The DSO TEG considers some to be too much focused on putting more burden on DSOs. The DT assumes respondents will provide input for their own 'stake'.

On the topic of frequency withstand capabilities the DSO TEG notes that a DSO has no means to guarantee this at the connection point for the whole demand as it depends on the individual demand facilities connected to its grid, even with all the (passive) distribution assets being able to provide this capability.

## **5. Relation RfG / DCC**

The need of keeping the RfG and DCC well synchronized is acknowledged. All agree that at the moment both are.

The DT is open to have a joint RfG/DCC meeting with the DSO TEG if needed.

## **6. Next steps**

Next interactions (conference calls) are proposed for

- 14 May – overview of responses received in the Call for Stakeholder Input
- 22 May – first assessment of responses by the DT and possible impact on the draft code.

End of meeting