<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00-13:15</td>
<td>Introduction and NC status</td>
<td>Konstantin Staschus&lt;br&gt;ENTSO-E Secretary-General</td>
</tr>
<tr>
<td>13:15-13:45</td>
<td>Major improvements in NC ER Roundtable organisation</td>
<td>Laurent Lamy&lt;br&gt;ENTSO-E Convenor of NC ER Drafting Team</td>
</tr>
<tr>
<td>13:50-14:25</td>
<td>Roundtables – session 1</td>
<td>NC ER Drafting Team members&lt;br&gt;Workshop participants</td>
</tr>
<tr>
<td>14:30-15:05</td>
<td>Roundtables – session 2</td>
<td>NC ER Drafting Team members&lt;br&gt;Workshop participants</td>
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<td></td>
<td>Coffee break</td>
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<tr>
<td>15:15-15:50</td>
<td>Roundtables – session 3</td>
<td>NC ER Drafting Team members&lt;br&gt;Workshop participants</td>
</tr>
<tr>
<td>15:55-16:30</td>
<td>Roundtables – session 4</td>
<td>NC ER Drafting Team members&lt;br&gt;Workshop participants</td>
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<tr>
<td>16:35-17:30</td>
<td>Conclusion &amp; Summary of workshop</td>
<td>Geoffrey Feasey&lt;br&gt;ENTSO-E Corporate Affairs Manager&lt;br&gt;Laurent Lamy&lt;br&gt;ENTSO-E Convenor of NC ER Drafting Team</td>
</tr>
</tbody>
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Network Code on Emergency and Restoration

Introduction and network code status
Objective of this workshop

Listen to stakeholders
Current status of Network Codes

Drafting and consultation

ACER review

Comitology

Implementation

Early implementation

CACM

Requirements for Generators

Demand Connection

Pre-Comitology:

5 codes recommended for adoption

Balancing:

New version submitted in September

Emergency and Restoration
Some Network Codes will be relabelled “guidelines”, leaving their content and legal value unchanged.

<table>
<thead>
<tr>
<th>Network codes</th>
<th>Binding guidelines</th>
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<tbody>
<tr>
<td><strong>Content</strong></td>
<td></td>
</tr>
<tr>
<td>Set of rules that can be directly implemented in each Member States</td>
<td>Include items which require further implementation at cross-border level</td>
</tr>
<tr>
<td><strong>Legal force</strong></td>
<td></td>
</tr>
<tr>
<td>Binding</td>
<td>Binding</td>
</tr>
<tr>
<td><strong>Development process</strong></td>
<td></td>
</tr>
<tr>
<td>Defined in Third Energy Package</td>
<td>In principle development process of binding guidelines can be less formal</td>
</tr>
<tr>
<td></td>
<td>In practice same process as for network codes applied so far</td>
</tr>
<tr>
<td><strong>Adoption process</strong></td>
<td></td>
</tr>
<tr>
<td>Comitology procedure</td>
<td>Comitology procedure</td>
</tr>
<tr>
<td><strong>Amendment process</strong></td>
<td></td>
</tr>
<tr>
<td>Defined in Electricity Regulation and ACER guidance document</td>
<td>Not defined</td>
</tr>
<tr>
<td></td>
<td>In practice should be the same process as for network codes</td>
</tr>
</tbody>
</table>
Long term stakeholder engagement: creating a European stakeholder committee with ACER

- Public consultations
- Public workshops
- Ad-hoc expert groups
- Users groups
- Bilateral discussions

- Public consultations
- Public workshops
- Case by case ad-hoc users/experts groups
- Stakeholder committee

A perennial group to oversee network codes implementation
Composition based on expertise and efficiency

A platform to coordinate views, collect valuable comments
Transparency ensured with a single information library

Rules to be defined to avoid “over-Comitology”
Roles of these groups might evolve over time

ACER Review/Comitology
Implementation
Monitoring/Amendment

Drafting
Objectives of the network code on Emergency and Restoration (NC ER)

Providing Europe with a more competitive and secure business environment, improving life quality of European citizens

- Preventing the deterioration or propagation of an incident
- Avoiding Blackout States
- Ensuring efficient and rapid restoration from emergency and blackout situations

Achieving harmonised and solid technical framework for system operations when in emergency and for system restoration

- Defining rules to be followed in emergency situations
- Making cross border assistance of supply a reality
Several stakeholders expressed ideas for further elaboration of market interaction chapter in the 1st workshop on NC ER and offered help to elaborate the chapter.

The drafting team worked extensively together with this small group of stakeholders and further elaborated market interaction chapter.

Mini-consultation starting in December
This new chapter will be published together with LFDD topic.

Additional workshop on 8 January
on LFDD and market interaction topics
Network Code on Emergency and Restoration

Major improvements
What has been improved in the new draft NC ER?

- Stakeholder comments from Public workshop 1 integrated
- All chapters developed
  - Restoration plan and Compliance and review significantly extended
  - New chapter on market interactions
- Consistency of requirements ensured
- Redundant requirements with other NCs avoided
Major improvements

General Provisions

- More clarity on **Significant Grid Users** addressed
- **New definitions**
- Article on « **Coordination** » and « **Consultation** »
- Requirements for
  « **Power systems operating in a Synchronous Area whose frequency is influenced in a predominant way by systems that are not bound by the EU legislation** »
Major improvements

System Defence Plan

• ‘Identified parties’ in the Plans
• Requirements on
  o high Frequency control scheme, based on Limited Frequency Sensitive Mode
  o scheme against voltage collapse, based on blocking of On Load Tap Changer
• Set-point instruction
• No more reference to Multi-party agreement
Major improvements

**Restoration Plan**

- **Re-energisation strategies**: bottom-up / top-down
- Criteria for the appointment and responsibilities of the Frequency Leader
- **Frequency management obligations** in case of Synchronous Area split or significant frequency deviation
- Resynchronisation procedure
- Criteria for the appointment and responsibilities of the Resynchronisation Leader
Major improvements

Market interactions - NEW

- Clarity on interaction between system operation and market activities
- Link with requirements from other NCs
- Suspension of market activities and TSO processes
- Restoration of market activities and TSO processes after technical restoration of the grid
- Settlement principles
Major improvements

**Information exchange and communication: tools & facilities**

- Clarity on the *information* to be exchanged
- Requirement on *communication channels* re-drafted
- Availability of *backup power* supply sources for *communication channels* tools & facilities
Major improvements

Testing and review

• Addresses reliability of measures not used in ‘everyday operation’, but required in extreme situations
• Requirements for major capacities used in Defence and Restoration Plans
• Methodology already described in connection codes
• Minimum frequency of tests in NC ER
• Testing of procedures
• Periodic review of the Plans
Additional public consultation on NC ER

Follow up actions after launch of public consultation:

- The drafting team worked extensively to provide a **more detailed framework on market related issues** considering views and proposals from several stakeholders.
- TSOs concluded the **review of the Low Frequency Demand Disconnection schemes in the different Synchronous Areas**; the relevant network code provisions will be drafted based on the review.

Next steps:

- **Mid December 2014**: publication of the new text (market related issues and LFDD)
- **Public consultation on the new text**: stakeholders invited to provide comments for a period of 4-5 weeks
- **8 January 2015**: public workshop on LFDD and market related issues
Network Code on Emergency and Restoration

Roundtables organisation

Laurent LAMY
Topics of Roundtables

- System Defence Plan
- Restoration Plan
- Information-Communication Testing-Review
- Market Interactions General provisions

- 35 minutes per session
Roundtables organization

- 35 minutes per session allowing for maximum interaction

Roundtable A: Room: Faraday - Watt
Roundtable B: Room: Coulomb
Roundtable C: Room: Ampere – 6th floor
Roundtable D: Room: Hertz – 6th floor
Network Code on Emergency and Restoration

Conclusion

Geoffrey Feasey
Network Code Timetable

EC mandate

Public Workshop 1

Public Workshop 2

Public Workshop 3

NC submitted to ACER

Public Consultation 13 Oct to 8 Dec

2014

2015
Thank you for your attention