

NC Emergency and Restoration implementation

System Operation Stakeholder Committee
13 September 2018, Brussels

Principles for suspension and restoration of market activities

Martine Verelst

System Operation Stakeholder Committee
13 September 2018, Brussels

Setting the scene (1)

The chapter Market Interactions in NC ER gives guidance to facilitate suspension and restoration of market activities.

NC ER :

- a) stipulates in which situations market activities may be suspended (article 35.1)
- b) lists which activities may be suspended (article 35.2a-f)
- c) requires that when considering suspension, several factors should be taken into account (article 36.4)

These requirements:

- are set on individual TSOs
- should be transferred into a proposal (deadline 18 December 2018)
- require NRA approval

The proposal for settlement in case of suspension has been out of scope

Setting the scene (2)

Situations in which market activities may be suspended are:

- the transmission system of the TSO is in blackout state
- the TSO has exhausted all options provided by the market and the continuation of market activities under the emergency state would deteriorate
- the continuation of market activities would decrease significantly the effectiveness of the restoration process to the normal or alert state
- tools and communication means necessary for the TSOs to facilitate market activities are not available

Activities that may be suspended:

- related to provision of data from one entity to another (for example the provision of schedules by market parties)
- other market activities

Implementation Guidance by ENTSO-E

The NC ER expert team at ENTSO-E focused on:

- Inventory of “other market activities” (article 35.2.f)
- For each other market activity guidance for suspension is given

Other market activities that are identified:

- Long term capacity calculation
- Day ahead market coupling
- Intraday market coupling
- Intraday market parties' trading on a NEMO platform within a Bidding Zone
- Balancing markets
- OTC trade
- Imbalance settlement

Regional coordination of system defence and restoration plans

César Clause

System Operation Stakeholder Committee
13 September 2018, Brussels

Regional coordination (art. 6) (1)

Each EU TSO when designing system defence plan and restoration plan shall ensure consistency (within SA and with neighbouring TSOs belonging to another SA) the following measures (6(1)) :

- a) Inter-TSO assistance and coordination in emergency state (defence plan);
- b) Frequency management procedures (defence plan & restoration plan);
- c) Assistance for active power procedure (defence plan);
- d) Top-down re-energisation strategy (restoration plan).

Regarding the timescale for implementation of this, 3 options have been discussed with ACER and EC, the following option was recommended informally:

→ *TSOs will deliver (on a voluntary and early implementation basis) to “bodies” called “RSCs” measures after NRA approves proposals defined in article 4(2) of NC ER, as such decisions can have an impact on measures for RSC check. It means that “RSCs” will start their work in July 2019*

The proposal will be internally discussed and approved by relevant ENTSO-E bodies in October 2018

Regional Coordination (art 6) (2)

- The NC ER expert team are working towards delivery of requirements of Article 6 in line with the requirements of the network code (by 18/12/18). At this stage arrangements have not been agreed with the „RSC's" over delivery of Article 6 (3).
- The team propose to submit the Regional Coordination measures to the RSC's on a synchronous area level.
- NC ER Team created a template to allow TSOs to provide information to RSCs in a consistent way
- NC ER Team also drafted a supporting document to this template
- The documents are under review by relevant ENTSO-E bodies

Communication systems

César Clause

System Operation Stakeholder Committee
13 September 2018, Brussels

NC ER – Communication systems

Retrospect of SO ESC meeting, June 12, 2018 in Ljubljana:

- Technical requirements for voice communication (article 41 (3)) – draft under internal consultation within ENTSO-E

On ACER's request ENTSO-E prepared an „**Implementation Guide for the Communication Systems Requirements**” which was recently finalized and is now awaiting final approval from ENTSO-E respective bodies.

- The implementation guide provides the TSOs general view and understanding about the necessary requirements and equipment needed for an efficient and secure communication.
- The implementation guide provides support for all TSOs and relevant stakeholders in order to be able to comply with NC ER.

NC ER – Voice communication systems - Technical requirements

- EQUIPMENT REDUNDANCY

TSO / SGU A

TSO / SGU B

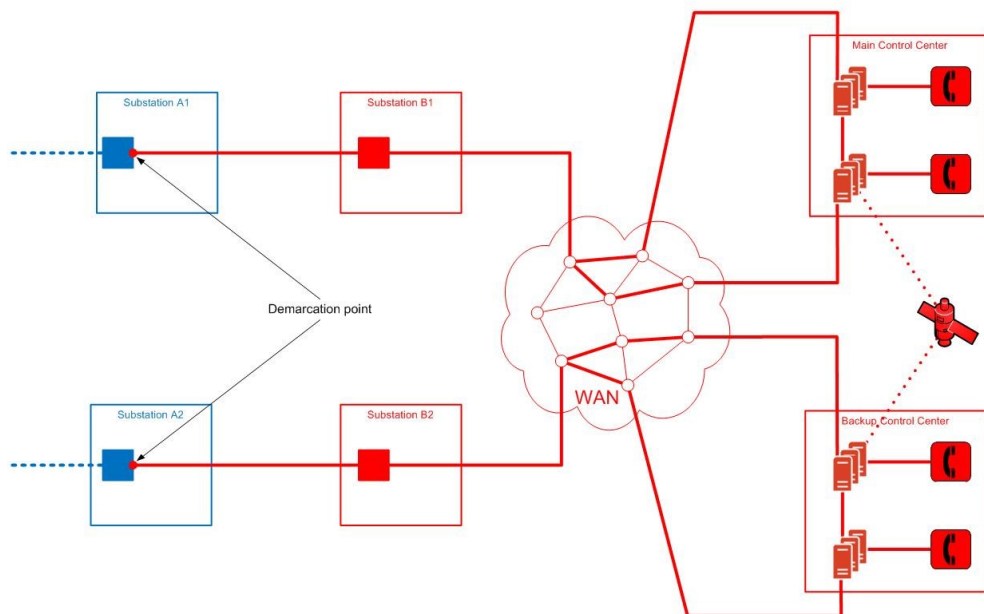


Figure 1: direct redundant communication infrastructure

TSO / SGU A

TSO / SGU B

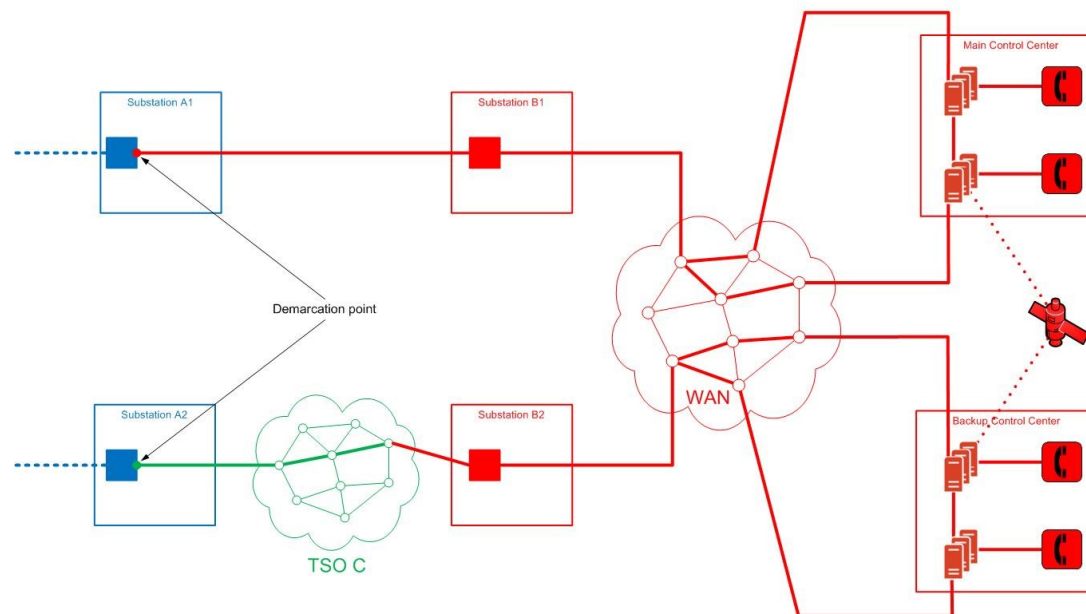


Figure 2: redundant communication infrastructure via a third party.

- BACKUP POWER SUPPLY of minimum 24 hours in order to assure all parties can be contacted
- USER INTERFACE to guarantee identification of the incoming calls

NC ER – Data communication systems - Background

- No need for voice communication to type A or B Power Generating Modules relevant for restoration.
- Fulfilling same requirements as voice communication systems (redundancy, back up power supply)
- But it is of utmost importance that relevant operator (DSO or TSO) is able to directly control these units in the restoration process.
- E.g. if a wind park shall be used for supplying a certain amount of load in the restoration process, a signal need to be send to that wind park so it “knows” what to do.

THANK YOU

FOR YOUR ATTENTION



info@entsoe.eu



+32 2 741 09 50



For more information:
<http://www.entsoe.eu>



Av. de Cortenbergh 100
1000 Brussels Belgium