

System Operation European Stakeholder Committee

System Operation European Stakeholder Committee
11 September, Ljubljana

1.1 Draft Agenda

No	Subject	Time	Lead
1.	Opening <ul style="list-style-type: none">- Review of the agenda- Review and approval of minutes from previous meeting- Review of actions	09:00 – 09:05	Uros Gabrijel Jean-Philippe Paul
2.	Update on the implementation actions at pan-EU level	09:05-09:15	Jean-Philippe Paul
3.	NC Emergency and Restoration <ul style="list-style-type: none">- Terms & Conditions approved by NRAs (Active Library)- Planning the workshop on Market Interactions	09:15-09:30	Rafal Kuczynski
4.	Dynamic Stability Assessment <ul style="list-style-type: none">- Response to open/pending questions from stakeholder workshops- Status on implementation of SO GL Art 38 and 39.	09:30-09:45	Knud Johansen
5.	CGM related methodologies <ul style="list-style-type: none">- State of discussions on extension of the CGM process to the week-ahead time frame- Presentation of DRAFT consolidated methodologies incl. open issues / questions identified in the revision	09:45-10:00	Cesar Clause, Knut Eggenberger
6.	VGB questions	10:00-10:05	Jean-Philippe Paul
7.	Stakeholder topics	10:05-10:25	TBD
8.	AOB	10:25-10:30	

1.3 Review of actions

ENTSO-E

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Actions and status

ACTION	ANSWER	STATUS
<p>1. The answers to the questions raised by VGB at the 4th SO ESC meeting regarding interpretation of certain articles in the SO GLs and NCs will be made available on the ENTSO-E website once finalized.</p>	<p>Final set of answers is provided among the materials for this meeting</p>	<p>Closed</p>
<p>2. SOGL: ENTSO-E is invited to provide visibility regarding the numbers and the approaches taken regarding the implementation of the LFC block operational agreements and reserve sizing, for example regarding the probabilistic approaches applied in different areas and how those compare to each other.</p>	<p>ENTSO-E to endeavour to collect the data during S2 2019, after the approval of LFC block operational agreements and after clarifying the exact scope of the request with ACER. ENTSO-E encouraged the Members in August to voluntary publish the LFC block operational Agreements using the Transparency Platform.</p>	<p>In progress</p>

Actions and status

ACTION	ANSWER	STATUS
3. ENTSO-E should collect information regarding SOGL and NC ER implementation and ensure transparency through the Active Library and the monitoring file.	SPOCs of NC ER were reminded on this action. The creation of SO GL is work in progress for Q4 2019.	In progress
4. The topic of the update on the defense and restoration plans by ENTSO-E will be considered for the joint SO-GC ESC session in March.	System defence and restoration plans cannot be made publicly available for security reasons. National implementation plans are available on ENTSO-E website - https://www.entsoe.eu/network_codes/er/	Closed
5. NC ER: Relevant TCMs regarding defense and restoration providers as per the ER NC can be made available through the ENTSO-E website, once the NRA decisions have been issued, provided that there are no confidentiality issues.	ENTSO-E initiated an action to remind the SPOCs for ER to upload the files onto the Active Library. As these are National proposals ENTSO-E can remind/encourage the TSOs to do so (voluntary).	Closed

Actions and status

ACTION	ANSWER	STATUS
6. Regional coordination proposals (per CCR): ENTSO-E will look into the feasibility for organizing a stakeholder workshop on the regional coordination topic.	A Workshop will be organized in Q4 with NRAs/ACER/EC and there will be public consultation in each CCR.	Closed
7. CGM related Methodologies – Substantive presentation on the consolidated CGM-related methodologies.	Point included in the Agenda for this meeting	In progress

2. 2. Update on the implementation actions at pan-EU level

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Pan-European deliverables 2019

CSAm

Adopted by ACER on 21 June 2019, requests all TSOs to develop two amendments (Article 21 and 27) to this methodology within 18 months (ie by 21 December 2020) – Public Consultation to happen in September 2020

LFCR
Transparency

TSO Preparations ongoing to start publication according to SO GL articles 183-190 into the Transparency Platform

Regional deliverables 2019

SAOA

April-August 2019: NRA approvals

1 month after NRA approval: signing of agreements

3 months after NRA approval: entry into force of SAOA

SAOAs will be shared gradually in [Transparency Platform](#) System Operations Area.

Minimum inertia

October 2019: studies on minimum inertia. TSOs will share with competent Authorities per synchronous area

October 2019 – March 2020: methodologies for definition of minimum inertia (where relevant)

CBA LER

Q4: Dedicated session to the organized when the input data will be ready. Date will be communicated 3 weeks in advance.

About April 2020: CBA results suggesting the minimum activation period for FCR

Regional deliverables 2019

Regional
coordination
proposals
(per CCR)

Due 3 months after approval of CSAm

Due to the handling of changes introduced by ACER, 3 Months of extension have been agreed for the submission of proposals to NRAs (December 2019). Consultation will take place in each CCR.

3. NC Emergency and Restoration

Rafal Kuczynski

11th September 2019

3.1. NC ER – Active Library

Rafal Kuczynski

NC ER Active Library

- [Active Library](#) (IT Tool) will be available end of September (at latest)
 - Information concerning status of the NRAs approval (deliverables article 4(2)) are collecting via internal Survey – first results shows that plenty of terms and conditions are not yet approved.
 - ENTSO-E – expects to present Summary on Dec. 2019 SO ESC.
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3.2. Report on harmonisation of rules for suspension of market activities

Report on assessing the level of harmonization of the rules for suspension and restoration of market activities

7. By 18 December 2020, ENTSO for Electricity shall submit to the Agency a report assessing the level of harmonisation of the rules for suspension and restoration of market activities established by the TSOs and identifying, as appropriate, areas that require harmonisation.

8. By 18 June 2020 each TSO shall submit to ENTSO for Electricity the data required to prepare and submit the report in accordance with paragraph 7.

*NC ER art. 36

corrigendum issued that it is 2020 - <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R2196R%2801%29>)

The task for ENTSO-E:

INPUT:

- 26* national rules approved/or in the process of being approved by each NRA
- In their own language
- General guidance was provided voluntary by ENTSO-E on what to consider
- Obligation to provide the rules to ENTSO-E: June 2020



OUT PUT:

- Report on assessing the level of harmonization of the rules for suspension and restoration of market activities
- **Deadline: Dec. 2020**

ENTSO-E did an informal survey (Q1 2019) among TSOs on what is included on these rules

Responses received: 13 MSs

Won't use this possibility: 2MS (SE, FI)

Suspension of activities of Balancing/Ancillary Services Market: 10 MS

Suspension of provision of cross-zonal capacity: 8 MSs

Suspension of Single Day Ahead Coupling/Single Intraday Coupling (SDAC/SIDC): 5 MSs

Responses are in sharepoint: [link](#)

DISCLAIMER – some responses are outdated due to RfA

Report on assessing the level of harmonization of the rules for suspension and restoration of market activities

Start of the process

- Tracking submission of deliverables to NRAs (MIWG 3 September)
- Once there is enough national proposals approved by NRAs – start the work
- Expected: September 2019

How to assess 26 proposals

- Instead of translating 26 set of rules, ask the TSOs to answer key questions
- The template of key questions will be shared with stakeholders

Analysis

- The report aim at identifying the gaps and inconsistencies, and identify where there may be an opportunity for harmonisation.
- The report does not look for harmonization as a purpose itself, but provide an overview on the current situation.

Main content of the rules

- Suspension of activities of Balancing/Ancillary Services Market
- Suspension of provision of cross-zonal capacity
- Suspension of Single Day Ahead Coupling/Single Intraday Coupling (SDAC/SIDC)

Process proposal

Select 4-5 TSOs whose national rules should be translated to EN. Transl (end-Oct)

Analyse the translated rules to identify key content

Draft template of key questions, for each TSO to answer in English. (by end-Dec.)

Consult with stakeholders the template and add their recommendations. (1st MESC 2020)

Launch survey (fill in template) (by end-March 2020)

Drafting the report (Q2-2020)

Involve stakeholders on status updates (MESC, webinars..)

Final submission of the report : (Deadline Dec. 2020)

4. Dynamic Stability Assessment / Management

Knud Johansen

11th September 2019

Activities within ENTSO-E on SO GL art. 38 & 39

Actions in-progress

- **For MI - art. 39(3)(a)**
 - All ENTSO-E Regional Groups addressed to timely deliver outcome of their studies and projects (RG CE and RG Nordic) or taking formal steps to confirm fulfillment of the requirements for the NRAs.
 - Results are planned to be available for delivery to NRAs Sep 2019 – still in discussion

- **For DSA – art. 38(2) & 38(3)**
 - At present DSA results are coordinated in various ways in the synchronous areas.
 - A harmonized approach per SA following the specifications in SO GL Art 38(3) are in discussion
 - An agreed orientation for common regional approaches are expected Dec of 2019

Pending questions:

Historical data / evolution of inertia for RG CE

- **Still in discussion** on how the migration of system stability aspects (inertia, rotor angle stability, voltage stability etc.) can be illustrated depending on the evolution of the generation and demand portfolio.

Other pending questions

- **Still in progress** / response under discussion and will be presented at the regular SO ESC meeting in December 2019.
- Statistics of questions to be responded:

Questions/Remarks	Draft replies
RG CE related: 8 questions RG GB related: 4 questions RG IE/NI related: 4 questions RG Nordic related: 5 questions Additional general questions: 16	

Backup slides

Activities within ENTSO-E on SO GL art. 38 & 39

ENTSO-E TSO Workshops

- 08-09/11/17 1st WS dialog on current practices - DSA and MI
- 24/04/18 2nd WS aimed at first assessment and solutions in each SA
- 20/09/18 3rd WS aimed at discussion and drafting of a solutions for compliance to art 39(3)
- 09/04/19 4th WS aimed at discussion and drafting of a solutions for compliance to art 38(2)

ENTSO-E DSA Stakeholder Workshops

- 23/05/18 1st DSA SH WS presenting current practices in each SA
- 10/12/18 2nd DSA SH WS aimed at presenting the principles applied in each SA
- 15/05/19 3rd DSA SH WS aimed at presenting coordination activities on DSA (38(2))in each SA

Future DSA SH issues will be guided to the regular SO ESC meetings

Dynamic stability Assessment | SO GL requirements

Quick reminder - extract from SO GL

Articles concerned: 38, 39 in whole; 41, 45, 48, 57 partially (data exchange)

Article 38: Dynamic Stability monitoring and assessment

- Imposes obligations on individual/synchronous area TSOs on monitoring and exchanging data on DS (38.1) as well as on performance and coordination of DS assessment (38.2).
- Determines criteria (38.3) and sets the rules for deciding on the methods (38.6) in DS assessment.
- Dynamic stability includes - frequency stability, angle stability and small signal stability aspects

Article 39: Dynamic Stability management

- Imposes obligations to develop remedial actions if violations appeared (39.1), ensuring fault clearing times shorter than critical time calculated according to (39.2) and sets requirements on the common studies for identification and (if required as the outcome) (39.3.b), all TSOs from the concerned synchronous area shall jointly develop a methodology for the definition of minimum inertia required to maintain operational security and to prevent violation of stability limits methodology for defining a minimum inertia required to maintain operational security and to prevent violation of stability limits.

SO GL art. 38 Dynamic stability monitoring and assessment

1. *Each TSO shall monitor the dynamic stability of the transmission system by studies conducted offline in accordance with paragraph 6. Each TSO shall exchange the relevant data for monitoring the dynamic stability of the transmission system with the other TSOs of its synchronous area.*
2. *Each TSO shall perform a dynamic stability assessment at least once a year to identify the stability limits and possible stability problems in its transmission system. All TSOs of each synchronous area shall coordinate the dynamic stability assessments, which shall cover all or parts of the synchronous area.*
3. *When performing coordinated dynamic stability assessments, concerned TSOs shall determine:*
 - a) *the scope of the coordinated dynamic stability assessment, at least in terms of a common grid model;*
 - b) *the set of data to be exchanged between concerned TSOs in order to perform the coordinated dynamic stability assessment;*
 - c) *a list of commonly agreed scenarios concerning the coordinated dynamic stability assessment; and*
 - d) *a list of commonly agreed contingencies or disturbances whose impact shall be assessed through the coordinated dynamic stability assessment.*
4. *In case of stability problems due to poorly damped inter-area oscillations affecting several TSOs within a synchronous area, each TSO shall participate in a coordinated dynamic stability assessment at the synchronous area level as soon as practicable and provide the data necessary for that assessment. Such assessment shall be initiated and conducted by the concerned TSOs or by ENTSO for Electricity.*
5. *When a TSO identifies a potential influence on voltage, rotor angle or frequency stability in relation with other interconnected transmission systems, the TSOs concerned shall coordinate the methods used in the dynamic stability assessment, providing the necessary data, planning of joint remedial actions aiming at improving the stability, including the cooperation procedures between the TSOs.*
6. *In deciding the methods used in the dynamic stability assessment, each TSO shall apply the following rules:*
 - a) *if, with respect to the contingency list, steady-state limits are reached before stability limits, the TSO shall base the dynamic stability assessment only on the offline stability studies carried out in the longer term operational planning phase;*
 - b) *if, under planned outage conditions, with respect to the contingency list, steady-state limits and stability limits are close to each other or stability limits are reached before steady-state limits, the TSO shall perform a dynamic stability assessment in the day-ahead operational planning phase while those conditions remain. The TSO shall plan remedial actions to be used in real-time operation if necessary; and*
 - c) *if the transmission system is in the N-situation with respect to the contingency list and stability limits are reached before steady-state limits, the TSO shall perform a dynamic stability assessment in all phases of operational planning and re-assess the stability limits as soon as possible after a significant change in the N-situation is detected.*

SO GL art. 39 Dynamic stability management

1. *Where the dynamic stability assessment indicates that there is a violation of stability limits, the TSOs in whose control area the violation has appeared shall design, prepare and activate remedial actions to keep the transmission system stable. Those remedial actions may involve SGUs.*
2. *Each TSO shall ensure that the fault clearing times for faults that may lead to wide area state transmission system instability are shorter than the critical fault clearing time calculated by the TSO in its dynamic stability assessment carried out in accordance with Article 38.*
3. *In relation to the requirements on minimum inertia which are relevant for frequency stability at the synchronous area level:*
 - a. *all TSOs of that synchronous area shall conduct, not later than 2 years after entry into force of this Regulation, a common study per synchronous area to identify whether the minimum required inertia needs to be established, taking into account the costs and benefits as well as potential alternatives. All TSOs shall notify their studies to their regulatory authorities. All TSOs shall conduct a periodic review and shall update those studies every 2 years;*
 - b. *where the studies referred to in point (a) demonstrate the need to define minimum required inertia, all TSOs from the concerned synchronous area shall jointly develop a methodology for the definition of minimum inertia required to maintain operational security and to prevent violation of stability limits. That methodology shall respect the principles of efficiency and proportionality, be developed within 6 months after the completion of the studies referred to in point (a) and shall be updated within 6 months after the studies are updated and become available; and*
 - c. *each TSO shall deploy in real-time operation the minimum inertia in its own control area, according to the methodology defined and the results obtained in accordance with paragraph (b).*

5. Common grid model methodology- Feedback System Operation Coordination Group

Knut Eggenberger / César Clause

11th September 2019

Overview

Review of memo on week-ahead CGM process - summary of feedback
(...)

Updating of list of "all TSOs" and their participation rights
(...)

Update on consolidation narrowly defined
(...)

Status on week-ahead CGM process development

Key points on planned week-ahead CGM process summarized in memo and distributed to CGM Managers for review

- Fifty-plus comments received. Main takeaways are :
 - Clarify non-binding character of the extension to the week-ahead time frame
 - Explain the creation of Net Position for week ahead timeframe (link between CGMA and STA process)
 - Clarify the management of outages in the IGM/CGM files :
- Following alignment in the drafting team and with the original commentators ==> general update

Updating of list of "all TSOs" (and their participation rights)

Background:

- Consolidation of methodologies might require at least two "all TSOs" processes (depending on the decision process)
- However, list of eligible TSOs and their participation rights was last updated ~ three years ago
- Getting the list of TSOs (and their participation / voting rights) wrong could void any decision ==> update required

Looking for a consolidation of the list (no promises)

- EU Commission has most of the information required by law
- Action item from last meeting of SO CG: César / Knut to ask Commission for support on updating of the list of certified TSOs and their participation (voting) rights
- Encouraging conf call on MON-2019-07-29 (indication of willingness to help from SO CG contacts)

Update on consolidation narrowly defined

Articles across the three (CGMM) / two (GLDPM) versions are so similar that the material can be consolidated Article-by-Article - for each Article

- pairwise comparison 01/02: v1+ vs v3; v2+ vs v3 (v3 is the starting point)
- draft consolidated Article
- pairwise comp. 02/02: v1+ vs cons.; v2+ vs cons; v3 vs cons ==> check that content unchanged
- add comments / explanations as appropriate
- consultation package (per Article): draft consolidated Article, 3 Δ versions, comments (if any)

In a second step, a number of ancillary tasks are covered:

- extract both explicit and implicit implementation requirements
- check "CEP-proofness" (completed for the time being: memo | checking this again for each Article unlikely to add value)
 - replace "RSC" with "RCC"
 - revise Whereas in order to take into account Article 5(2) of the recast ACER Regulation
- check robustness to 15-min-ISP

The next slide illustrates the checklist for Article 1 of the CGMM; the slide thereafter illustrates the overview for the CGMM

6. VGB questions

Jean Philippe

11th September 2019

VGB questions

- After several constructive iterations between VGB experts and ENTSO-E experts and with the input from ACER over the summer, the final version of the questions and answers is presented among the materials for this meeting.
- After the discussion on the SO ESC 11th September this is an action can be closed.
- The file can be upload to the ENTSO-E website within the Network Codes / SO GL area.