## **System Operation European Stakeholder Committee**

## Materials for meeting 14 June 2022





# Agenda

Торіс	Timing	Presenter	
1. Opening	14.00-14.15		
Review of the agenda		ACER, Uros Gabrijel	
Review and approval of minutes from previous meeting		ENTSO-E Charry Vuen	
Review of actions		ENTSO-E, Cherry ruen	
2. Update on the implementation actions at pan-EU level	14.15-14.30	ENTSO-E, Cherry Yuen	
3. Cybersecurity Network Code – Status update	14.30-14.45	ACER, TBD	
4. Report on CGM Implementation	14.45-15.00	ENTSO-E, Jonathan Boyer	
5. Resilience of the EU generation infrastructure to weather-related hazards	15.00-15.15	ACER	
6. High-level update on synchronisation of Ukraine	15.15-15.30	ENTSO-E, Walter Sattinger	
7. AOB	15.30-16.00	ACER	
Update on Tmin FCR LER		(ENTSO-E, Luca Ortolano)	



# **1. Review of actions**

ENTSO-E, Cherry Yuen



# **1 Review of actions SO ESC**

ACTION	ANSWER	STATUS
Deterministic Frequency Deviation: 1) Could a reporting regarding the actions taken by TSOs to deal with deterministic frequency deviations (DFD) be put in place with market participants ? 2) What is the status of new frequency quality criteria in SAFA as well as the implementation of mitigation measures?	<ul> <li>"ENTSO-E will share the list of DFD mitigation measures, which has been shared with SO CG in August 2021, with SO ESC; Update: the slide deck was shared after the meeting.</li> <li>The target parameters in Policy LFC&amp;R B-1-2 are amended each year. These values are part of the public part of SAFA which is published here on the EE website"</li> </ul>	ongoing
Resilience	ACER will circulate a survey towards stakeholders in order to collect information about these measures and the topic will be further discussed at the next SO ESC in June. Update: the survey is shared with SO ESC members.	Done
Invite stakeholders	ENTSO-E will check if COGEN (Gunnar Kaestle) and other stakeholders (e.g. WindEurope) can be invited as guest to the internal group within ENTSO-E in charge of analysis the ''wind eclipse". Update: the analysis is postponed due to the emergency syncrhonisation project.	Ongoing

## **1 Review of actions SO ESC**

ACTION	ANSWER	STATUS
<ul> <li>FCR Tmin LER:</li> <li>1) We understand that an additional time of 6 months has been given to TSOs so that they can perform complementary studies (deadline extended from June to Dec 2022). Hence, this would be very helpful for market participants to know which complementary analyses are foreseen by TSOs.</li> <li>2) In particular, will a new ACB be performed by TSOs with a new methodological approach / new assumptions following notably the feedback of many stakeholders (including Eurelectric) during the previous consultations? For the record, we had several remarks linked to the fact that the modelling used tended overall to overestimate the negative impact of LERs on the electrical system.</li> <li>3) The TSOs had not established a clear threshold to characterize what was a negative/significant impact for the system or not: will this criterion be refined in the next 6 months?"</li> </ul>	Replies to be provided in the June SO ESC meeting in AOB, as planned in the agenda	Ongoing

# 2. Update on the Implementation Actions

ENTSO-E, Cherry Yuen



## Pan-European or regional deliverables 2022: SOGL/NCER

CSAm<br/>(Article 44.5)Secure data collection and validation platform being set up for<br/>the PRA (Probabilistic Risk Assessment) methodology expected<br/>in 2027

Operational Agreements

Ukraine/Moldova: Updates to be provided in dedicated agenda item #6



## Pan-European or regional deliverables 2022: SOGL/NCER

KORRR

Analysis completed on SO GL data exchange framework, taking into account regulatory changes Details presented in SO CG meeting in June Related SO GL amendments on data exchange submitted to EC public consultation for CACM 2.0 amendments

Network Code Emergency and Restoration

ACER has published an NCER Implementation report, which is available <u>here</u>. The ENTSO-E NCER expert team has identified points for discussions with ACER



# **3. Cybersecurity Network Code – Status update**

ACER



# 4. Report on CGM Implementation

ENTSO-E, Jonathan Boyer



## Enabling reliable and efficient grid operations via regional coordination



# Importance of CGM and OPDE to facilitate coordinated services

- IGMs/ CGMs are critical inputs to other RSC Services
- OPDE is SOGL-mandated platform for the exchange of all relevant data for these services
- CGM and OPDE are therefore the basic enablers for reliable Grid Operations



Regional coordination processes

**ENABLED BY** 

## Common and shared planning data

SHARED AND ACCESSED THROUGH

Digital infrastructure for pan-European data exchange & storage

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## **Overview of CGM build process**

 The CGM build process produces a consistent pan-European grid model, rely on the data exchange network and applications within OPDE



## Significant benefits delivered by CGM Programme in 2021

CGM Go-Live in 2021 delivered the legal mandate as set out in CGMM

## **Proven data exchange platform (OPDE)**

- Flexible (legally mandated) exchange platform
- Provides base "platform services" (e.g. data storage, logging) for use in all future data exchanges
- CGM Go-Live enables OPDE to be proven day-to-day

## **Operational, pan-European CGM service utilised**

## in a manner that drives out issues

- *Operational experience (TSOs/RSCs), to build confidence*
- Identify and resolve Issues based on "real" operations

### Active "stake in the ground" for RSC Service

Provides a first "stake in the ground" around which new services can test and be developed

### **Baseline for model quality and standardisation**

- CGMs produced/exchanged for mandated timeframes
- Quality can be refined utilising a flexible validation mechanism
- Provides baseline quality, to drive incremental improvement

## Base data exchange flows, ready for additional datasets

CGM provides a significant number of "base" flows, upon which development can occur for other services

## **Priority Focus Areas for 2022**



# Roadmap for use of CGM OPDE in RSC Services TARGET SOLUTION

	2022	2023	2024	2025	2026+
		COR-LT SWE-LT COR-DA COR-ID	GRT-LTITN-DAGRT-DASEE-DAGRT-IDSEE-ID	SEE - LT	
CSA			COR - D1COR - IDSWE - D1SWE - IDSEE - D1	BAL- D1	GRT- D1 GRT- ID ITN – D1 ITN - ID SEE - ID
STA			GRT-W1 ITN – W1 SEE – W1	NOR – W1	
OPC	NOR – W1	PAN-W1 NOR – Y1	PAN-W1           GRT- Y1         GRT- W1           ITN - Y1         SWE - Y1	COR - Y1COR - W1SCC - W1SWE - W1SEE - Y1SEE - W1BAL- Y1BAL- W1ITN - W1	

- The success of alignment of CGM and other RSC services will rely on coordination and efficient use of OPDE as the platform delivered to enable integrated and harmonised data exchange / service operations.
- Well coordinated planning across RSCs, CCRs, ENTSO-E and TSOs is critical to deliver benefits across the entire community, to avoid inefficiencies and to ensure successful migration.
- Note: where plans not confirmed or later than 2026, they are not displayed.

ID = Intraday | D1 = DA = Day Ahead | D2 = Two Day Ahead | W1 = Week Ahead | M1 = Month Ahead | Y1 = Year Ahead | LT = Long-Term



## What's next?

With the completion of the Stability Sub-Phase:

- ✓ The CGM community is ready for continued CGM operations
- ✓ CGM increased its overall compliance and operational performance

With the transition to enduring operations:

- CGM OPDE Task Team will support the CGM Community to achieve 100% compliance and operational readiness
- > The focus will be on increasing TSO participation and IGM/CGM model quality
- Next report for SO CG is planned for December 2022
- First annual report on regional coordination assessment (according to Article 17 SOGL) covering the CGM Business Process will be published in 2023 covering the service operation in 2022.







# 5. Resilience of the EU generation infrastructure to weather-related hazards

ACER



# 6. High-level update on synchronisation of Ukraine

ENTSO-E, Walter Sattinger



## **Synchronisation preparation**

- Start in 2017 with a dedicated WG, several studies based on model calculation and power plant measurements were performed, recommendation were elaborated, refurbishments were performed
- Envisaged synchronisation end of 2023



- Start of military actions during scheduled UA&MD island power system tests
- Request of urgent synchronisation
- Setup of dedicated Task Forces
- > Coordinated CE TSOs efforts for realisation of synchronisation pre-requisites



## **Synchronisation execution**

One of the main concerns was the fulfilment of dynamic stability conditions based on the danger of poorly damped inter-area oscillations due to the larger resulting power system size



- Control mode of power plants control equipment have been adapted
- Interface line protection was adapted
- > On March 16<sup>th</sup> the synchronisation was realised sucessfully

## **First three months operation experience**



- Two significant events have proven the stability of the new interface
- Coordination of scheduled outages of the interface lines becomes operational practice
- Several poorly damped inter-area oscillation modes were already observed
- Ukrenergo is performing under difficult boundary conditions damping measures which was already agreed
- Dynamic stability is in permanent monitoring condition
- Most active poorly damped inter-area oscillations were recorded on May 10th



## **Continuous monitoring: strict coupling of modes**



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## May 10<sup>th</sup> poorly damped inter-area oscillation analysis 11:30-12:00



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## May 10<sup>th</sup> poorly damped inter-area oscillation analysis zoom



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## **Next steps**

- Carefully, step-by-step increase of new interface NTC
- > Further implementation of standard CE operation rules and processes
- Improvements with respect to system damping for mitigation of poorly damped inter-area oscillations
- Further enhancement of new interface

# **7. AOB**

ACER ENTSO-E, Luca Ortolano

