35rd System Operation European Stakeholder Committee (SO ESC)

8 December 2025, 13:00 - 16:00

Location: Ljubljana, ACER

Minutes

Name	Affiliation	Role
Uros Gabrijel	ACER	Chairperson
Domen Kodric	ACER	Observer
Georgios Antonopoulos	ACER	Observer
Jan KOSTEVC	ACER	Guest
Marco Pasquadibisceglie	ARERA	Observer
Thomas Hoelzer	BNetzA	Observer
Florentien Benedict	DSO Entity	Member
Serdar Bolat	DSO Entity	Member
Tony Hearne	DSO Entity	Member
Andrea Hamzova	DSO Entity	Member Substitute
Gunnar Kaestle	COGEN	Member
Abel Santamaria	EDSO	Member
Santiago Gallego Amores	EDSO	Member Substitute
Gamze Dogan	ENTSO-E	Member
Juan Giner Folques	ENTSO-E	Member
James Hellinckx	ENTSO-E	Member
Cherry Yuen	ENTSO-E	Member
Kacper Kepka	ENTSO-E	Member
Vesela Stefanova	ENTSO-E	Member
Nora Filipczak	ENTSO-E	Member
Hanna Ljungberg	ENTSO-E	Member
Richárd Balog	ENTSO-E	Guest
Donatas Matelionis	ENTSO-E	Guest
Ana Cigaran Romero	ENTSO-E	Guest
Jens Albrecht	ENTSO-E	Guest
Rafal Kuczyński	ENTSO-E	Guest
Luca Guenzi	EU Turbines	Member
Steffen Eckstein	EU Turbines	Member Substitute
Herve Biellmann	EU Turbines	Member Substitute
Freddy Alcazar	EUGINE	Member
Assiet Aren	EUGINE	Member Substitute
Arthur Hubert	EURELECTRIC	Member
Cesar Nartinez Villar	EURELECTRIC	Member substitute
Jakub Fijalkowski	European Commission	Observer
Ellen Beckstedde	European University Institute	Observer
Pavla Erhartova	Europex	Member
Mike Kay	GEODE	Member
Erno Levaniemi	GEODE	Member Substitute
Stein Ovstebo	IFIEC	Member

Michaël Van Bossuyt	IFIEC	Member Substitute
Rainer Fronius	VGB Powertech	Member
Vidushi Dembi	WindEurope	Member
Marc Malbrancke	CEDEC	Member
Jannis Burger	Energy Storage Europe	Member
Alberto Cerretti	CELENEC	Member

1. Opening

1.1. Review of the agenda, approval of last meeting minutes

The Chair (Uros Gabrijel) opens the meeting and asks for comments on the agenda.

The minutes of the last meeting are approved.

Arthur Hubert (Eurelectric) asks for a discussion on the implementation of the 15 minutes Market Time Unit (MTU) which was launched on 1st October. This will be tackled in the action related to DFD.

1.2. *Review of Actions*

Cherry Yuen (ENTSO-E) presents the pending actions from the previous meeting.

- An update on Deterministic Frequency Deviation (DFD) is presented by Albrecht Jens (ENTSO-E) since the implementation of the 15 minutes MTU and in particular for the dates of 2 August and 1 December 2025 . The time series frequency deviation showed a frequency dip of about:
    - −100 mHz for the 2 August;
    - −117 mHz for the 1 December;

  The deviation within the green range of +/-50mHz is considered as a normal range of operation. The graph shows some larger deviation above 50mHz but nothing critical as they do not trigger operational measures. The largest recent negative excursions reached ~125 mHz; and the most frequent time of occurrence is ~22:00h (deterministic market driven ramp effects). The current season exhibits better performance versus other months in 2025.

  Luca Guenzi (EU Turbines) asks about the local deviations as the graph shows the overall frequency deviation. Additionally, he asks clarification on the characterisation of these deviations as ''normal'' as those affect the large power plants and will potentially worsen with a decreasing inertia of the system.

  Jens clarifies that it is characterised as ''normal'' because TSOs are now used to it and that a deviation within a +/-200mHz can be handled by the system. On the other hand, if a deviation of 100mHz is crossed over a longer time, then measures are activated. Given the short timespan of the deviations, there is nothing to be considered as an incident here. A report is expected to be finalised next year on mitigation measures.

  Gunnar Kaestle (Cogen) points out that in August there was a double dip and that he expected a positive impact on frequency deviation from the 15min MTU, which did not happen.

  Rainer Fronius (VGBE) confirms the results based on their own analysis, there is no change since the 15min MTU. He also confirms that the limits of 100mHz is not acceptable for large power plants and is considered as a disturbance.

  Jens clarifies that ''normal'' does not mean wanted and/or acceptable, but means that it is a repeated behaviour of the frequency which TSOs are used to now.

  The Chair asks what the planned actions are to identify measures to decrease the frequency deviations. Jens clarifies that no "single measure" will solve DFDs; a portfolio of actions (short- and long-term) is foreseen. The Chair asks for transparency about the content. ENTSO-E takes note of the request and at minimum, conclusion will be shared.

2. Update on the implementation actions at pan EU level

Cherry Yuen (ENTSO-E) presents the upcoming reports that will soon be published on ENTSO-E's website.

No comments received.

3. *Report on CGM Implementation*

Vesela Stefanova (ENTSO-E) presents the update on the Common Grid Model (CGM) implementation. The Business Requirements (BRS) for Operational Planning Data Environment (OPDE) 2.0 were approved and the harmonisation of power-flow calculation settings is ongoing. The CGM publication increased. The OPDE performance remains a limiter for operational readiness; further alignment is needed on tools parameterisation and input references.

No comments received.

4. *Update on probabilistic Frequency Containment Reserve (FCR) dimensioning and Long Lasting Frequency Deviation (LLFD) analysis*

Stakeholders are invited to read the slide and ask any question now or via email. Any question that cannot be answered now will be addressed via email and communicated to all for transparency.

ACER clarifies that the slide mainly focused on the FCR probabilistic dimensioning which has the purpose of re-evaluating the amount of the annual FCR need based on probabilistic dimensioning.

Jannis Burger (Energy Storage Europe) asks about the request from regulators on the extension for the Tmin LER decision (here). Additionally, he mentions that the CBA did not demonstrate the need for retroactive application for the 15min Tmin for LER.

ACER takes note and will get back to stakeholders with additional information on the request for extension.

ACER clarifies that in SO GL is it clearly stipulated that the deterministic approach the loss of 2 nuclear units should be covered.

Gunnar Kaestle (Cogen) asks about the probabilistic dimensioning and in particular how the tail of the distribution is considered and how to cope with those events. ACER clarifies that the probabilistic approach is meant to increase the deterministic value, and not decrease it.

Luca Guenzi (EU Turbines) asks clarification about what the FCR probabilistic dimensioning considers. He raises the point that now we are facing events were the loss of generation happens step by step and that those events are not considered.

Rainer Fronius (VGBE) supports this question as there are new types of events where we can lose renewables productions (for instance of a wind park) in few minutes, so not instantaneously, and for a larger amount.

The Chair clarifies that those inputs should be considered in the revision of the SO GL2.0.

Actions:

- ACER to come back to stakeholders with additional information on the request for extension (here).
  - ➔ **Update after the meeting**: additional information is provided in the letter for the extension request, available in the meeting folder.

5. *Updates from DSO Entity*

Florentien Benedict (DSO Entity) presents the update from the DSO Entity which focused on 3 main points:

- the DSO Entity answers to the ICS methodology public consultation, their feedback focused on the following points:
- the TF Iberian blackout
- the guidance of DSOs on grid forming roadmaps

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Hubert Arthur (Eurelectric), states that explicit requirement on unbundled DSOs from the ICS text is not appropriate and supports the DSO Entity's comment.

Luca Guenzi (EU Turbines) asks clarification on the work of the TF Iberian blackout and specifically, whether the DSO Entity intends, at any stage to issue a "DSO" report on the incident?

Florentien clarifies that the Expert Panel is asking questions to the DSOs about their data and about how their system works. Additionally, the focus for now is on the Iberian blackout, the DSO Entity is not involved in the other incident investigations (north Macedonia and Czech Republic). Tony indicates that this is very unlikely given the very limited nature of the DSO involvement at this point, as described. Florentien will consider further.

The Chair asks if this is an ad-hoc TF or a permanent one. Florentien clarifies that the EU DSO Entity will ask for a formal role in the Expert Panel in the scope of the updated ICS Methodology.

6. Iberian Incident

Richard Balog (ENTSO-E) presents the findings of the factual report on the Iberian Peninsula incident. The final report is expected for end of Q1 2026.

Gunnar Kaestle (Cogen) asks about the content of the final report and if it will include the analysis of the DSO system behaviour. Richard clarifies that in the 2nd phase, data was requested from all relevant parties. The DSOs are asked more active participation via dedicated meetings with the Expert Panel to clarify and analyse the behaviour of the DSO system and the assets connected to it.

Luca Guenzi (EU Turbines) asks about the workplan for oscillation and restoration process sub-team and if the oscillations on the days before the event are investigated.

Richard provided additional information on the organisation of the Expert Panel and how each topic is tackled by each sub-team (oscillations, restoration strategy/Black Start attempts, disconnections, reserves & defence plans, review of past recommendations). The findings of each sub-team are then discussed amongst the whole Expert Panel before sharing it outside. The oscillation investigation focuses on the oscillations of the day of the incident, but investigation of other days can be done if deemed relevant. The team is trying to simulate the behaviour of the power system during the incident.

Tony Hearne (DSO Entity) asks about the disconnection topic. It encompasses all types of disconnection and includes small generations as well.

Rainer Fronius (VGBE) asks clarification on the timing for the countermeasures activation. Richard clarifies that this is dependent on the countermeasures, some measures were activated before 12 o'clock. All information is provided in the factual report (including countermeasures for voltage control) but might not be available in one table gathering all countermeasures. Additionally, he points out that the renewables delivered much less of their active power, as it was expected. Rainer asks if there were any monitoring procedure of this in Spain. Richard clarifies that indeed there is a graph about reactive power of conventional units in the report, which is monitored continuously by TSO. All the information provided in the report is based on the collective data provided by all parties. Finally, Rainer points out that there might be some inconsistencies between the Expert Panel report and the South West Europe report related to the re-energisation of power plant (especially the timings do not match). Richard clarifies that the final report will present a more detailed overview of the restoration process. Each TSO/DSO has its own restoration strategy (which elements, grid users) and a thorough analysis of this will be presented in the final report.

Herve Biellmann (EU Turbines) asks about the lesson learned that they could implement and how those are drafted: based on inputs from utilities or with the experts from the Expert Panel? The lessons learned will be included in the final report based on the analysis of the data provided to the Expert Panel. Herve asks clarification on how utilities owner can support the drafting of recommendations based on the lessons learned especially if they will need to implement some (for instance, related to the impact of the voltage and frequency transient on the flux protection). Richard takes note of the point and will bring it to the EP for discussion.

Hubert Arthur (Eurelectric) asks about the inertia topic and where it will be tackled. Richard clarifies that it is part of the topic Oscillations and Reserves.

Luca Guenzi (EU Turbines) mentions that he supports the involvement of stakeholders in the recommendations drafting if they are impacted.

7. North Macedonia incident

Ana Cigaran Romero (ENTSO-E) presents the slides on the North Macedonia incident. The final report is planned for end of Q1 2026 and will focus on: root causes; voltage control, defence plan and enhancements of operational planning/procedures.

Luca Guenzi (EU Turbines) asks about the tools used by TSOs to inform about the system state in particular in emergency situations.

Ana answers that the European Awareness system (EAS) provides real-time information on the status of the system. The overvoltage issue in the Balkans is a structural one. Discussions are ongoing for better coordination on these issues, to better understand, identify emergency situations and coordinate actions between control rooms.

Gunnar Kaestle (Cogen) asks, on the topic of voltage management, who identified the same type of issues and how can everyone benefit from the analysis of the incident and the recommendation.

Ana clarifies that TSOs are paying attention to the issue, the recommendations might not be transferable as such to all system types (system conditions and connection requirements might be different than in Europe); but those can serve as a basis for improvements for other TSOs. Additionally, the recommendations can help the discussions with ministries and regulators.

8. Czech Republic Incident Investigation

Donatas Matelionis (ENTSO-E) presents the incident that happened in Czech Republic. The factual report will be published this month and already provides information on the cause for the disconnection of the first overhead line that initiated the sequence of events.

Luca Guenzi (EU Turbines) asks clarification about the ICS scale. Donatas clarifies that this incident scale is 2 as less than 50% of the load was loss. The exact percentage value will be available in the report.

9. AOB

The meeting date proposals for 2026 are discussed with the members.

March meetings:

- SO ESC: 3 March 2026 (Ljubljana, ACER)
- GC ESC: 4 March 2026 (Ljubljana, ACER)

June meetings:

- SO ESC: 17 June 2026 (Brussels, DSO Entity)
- GC ESC: 18 June 2026 (Brussels, DSO Entity)

October meetings:

- SO ESC: 7 October 2026 (Brussels, ENTSO-E)
- GC ESC: 8 October 2026 (Brussels, ENTSO-E)

December meetings:

- SO ESC: 8 December 2026 (ACER)
- GC ESC: 9 December 2026 (ACER)

The Chair closes the meeting.