

41st Grid Connection European Stakeholder Committee (GC ESC)

4 March 2026, Location: ACER office, Trg Republike 3, 1000 Ljubljana, Slovenia

Minutes

Participants			
Name	Association	Role	Attendance
Uros Gabrijel	ACER	Chairperson	Physical
Georgios Antonopoulos	ACER	Member	Physical
Domen Kodric	ACER	Observer	Remote
Adriana Pop	ACEA	Member	Remote
Marco Pasqua di Bisceglie	ARERA	Member	Physical
Marc Malbrancke	CEDEC	Member	Remote
Thomas Schaupp	CENELEC	Member	Physical
Alberto Cerretti	CENELEC	Member	Physical
Angelo Lo Brutto	CENELEC	Member	Physical
Julian Treichel	CharIN	Member	Remote
Benjamin Wunnerlich	CharIN	Observer	Remote
Gunnar Kaestle	COGEN	Member	Remote
Florentien Benedict	DSO Entity	Member	Physical
Tony Hearne	DSO Entity	Member	Physical
Serdar Bolat	DSO Entity	Member	Physical
Andrea Hamzova	DSO Entity	Member Substitute	Physical
Arthur Hubert	EURELECTRIC	Member	Remote
Santiago Gallego Amores	E.DSO	Member	Remote
Bernhard Schowe-von der Brelie	EFAC	Member	Physical
Freddy Alcazar	EUGINE	Member	Physical
Srinivasa Raju Addala	EUGINE	Member Substitute	Physical
Richard Masquelier	EHI	Member	Remote
Mélanie Auvray	EHPA	Member	Remote
Marco Zaccaria	ENTSO-E	Member	Remote
Flemming Brinch Nielsen	ENTSO-E	Member	Remote
Juan Giner	ENTSO-E	Member	Physical
Omar Juárez Moreno	ENTSO-E	Member	Physical
Tomas Reilly	EUI	Observer Substitute	Remote
Elaine O' Connell	European Commission	Member	Remote
Jakub Fijalkowski	European Commission	Member Substitute	Remote
Lex Coors	EUDCA	Member	Remote
Sofia Michalopoulou	EUDCA	Member Substitute	Remote
Luca Guenzi	EU Turbines	Member	Physical
Steffen Eckstein	EU Turbines	Member Substitute	Remote
Herve Biellman	EU Turbines	Member Substitute	Remote
Assiet Aren	EUGINE	Member	Remote
Mike Kay	GEODE	Member	Remote

Michael van Bossuyt	IFIEC	Member	Remote
Martin Stoessl	Orgalim	Member	Remote
Catarina Augusto	Solar Power Europe	Member Substitute	Remote
Rainer Fronius	Vgbe energy e. V.	Member	Physical
Klaus Oberhauser	Vgbe energy e. V.	Member	Physical
Roman Bertle	Vgbe energy e. V.	Member Substitute	Remote
Vidushi Dembi	WindEurope	Member	Remote

1. Opening

1.1. Review of the agenda

The Chair opens the meeting and updates participants that the European Commission had approached him with a request to contact the European Association for Data Centre Operators (EUDCA). Following discussions, EUDCA expressed interest in joining the GC ESC, and the invitation has been extended. Further details will be provided later in the meeting agenda on item 2.

The Chair introduces the agenda and invites participants to raise additional AOB topics:

- Thomas Schaupp (CENELEC) requests the possibility to include a few additional slides related to agenda item **5B (Technical Annex 2 – RfG)**. He suggests presenting them during the relevant discussion rather than waiting for the final CENELEC presentation slot.
- Aren Assiet (EUGINE) suggests a short follow-up discussion on **grid modelling and the common grid model**, referring to a presentation delivered to the group last year. He indicates that the intention is to briefly revisit the topic and gather members' views.
- Luca Guenzi (EU Turbines) requests the colocation topic to be included in the meeting agenda.

1.2. Approval of minutes from 09/12/2025 meeting

The minutes from the previous meeting are approved, as all submitted changes had already been incorporated and no further comments are raised. They can be accessed [here](#).

1.3. Follow-up actions from previous meeting

Juan Giner (ENTSO-E) presents the follow-up actions from previous meetings, which are tracked in the annex of the meeting minutes.

The open action points from the previous meetings are the following:

- **FMI & software standards:** Stakeholders expressed interest in reopening the discussion on FMI and software standards, but no preparation has been made for this meeting. The topic will remain open for a future meeting. This action remains **open**.
- **Baltic region synchronisation with the Continental Europe Synchronous Area:** Georgios Antonopoulos (ACER) shares that Regulators in the Baltic States were asked to provide an update on the topic. The Latvian NRA mentioned that they are expected to adopt a regulatory decision covering requirements related to the voltage ranges based on a proposal by their TSO. According to preliminary information, no changes to the current voltage ranges are expected. Further updates will be sought during the upcoming task force meeting and shared with ESC members once available. This action remains **open**.
- **ENTSO-E's report from the Technical Group on Forced Oscillations (TG FO):** The report was finalised but is currently being aligned with the Iberian blackout expert panel. The topic will be addressed in a future ESC meeting once finalised. This action remains **open**.
- **Czech & North Macedonia incidents, etc.:** Actions related to this topic remain open until the expert panel completes its work and publishes the report. This action remains **open**.
- **ESC EG on Certification on EVs/HPs:** both actions will be addressed during today's meeting.
- **First wave of IGDs:** ENTSO-E will share the articles to be addressed in the 1st wave of IGDs during today's meeting.
- **Members' list** has been updated including SmartEN's representation.

1.4. Updates from EC

Elaine O’Connell (European Commission) provides an update regarding the ongoing work on the RfG. The EC is currently reviewing the recommendation received from ACER and improving the clarity of the text.

The ongoing work includes restructuring and editing the text, such as renumbering articles, checking consistency, and addressing repetitions. Some repetitions may remain for clarity, but discussions with the Legal Service will determine whether certain elements should instead be replaced with cross-references.

Elaine O’Connell (European Commission) emphasises that, while these revisions focus on structure and clarity, substantive content developed through extensive work by stakeholders is being taken into account. Moreover, EC is assessing whether certain provisions —particularly concerning type A generators— may need to be made more exhaustive. Any such considerations will be shared with stakeholders, and there will be opportunities for comments in the have your say consultation.

Regarding the next steps, once the above tasks are completed, the proposed legal text will go through internal Commission processes, including review by the Legal Service. After that, the Commission will organise a meeting with Member State experts, including representatives from ministries and NRAs. In parallel, the document will also be published for public feedback, allowing stakeholders to provide comments.

In terms of timeline, the Commission aims to have the text ready for discussion with Member States and public consultation in Q2–Q3 of this year, depending on the progress of internal work and discussions with the Legal Service. Elaine O’Connell (European Commission) notes that the exact timing remains uncertain, but committed to keeping the GC ESC informed as soon as a clearer schedule is available.

Alberto Cerretti (CELENEC) stresses that the delay in finalising RfG 2.0 is creating several problems. International standardisation work is progressing independently, risking misalignment with European rules. At the national level, the national roadmap for grid forming —for example in Italy— still relies on the December 2023 draft from ACER, creating uncertainty for manufacturers developing compliant products. He suggests that publishing a draft text sooner, even if not perfect, would be preferable to waiting for a fully finalised version.

Michael Van Bossuyt (IFIEC) raises concerns from industrial consumers, noting that discussions in Belgium still rely on the 2023 RfG 2.0 draft, while the final requirements remain unclear. He asks when the work on NC DC 2.0 will start, as the lack of clarity on both RfG 2.0 and DC 2.0 creates uncertainty for investment decisions, particularly regarding electrification and load connections. Elaine O’Connell (European Commission) acknowledges stakeholders’ remarks regarding the delays. She explains that the Commission is currently prioritising the work on the NC RfG, while the NC DC will be addressed afterwards and there is no concrete timeline available at the moment.

Thomas Schaupp (CENELEC) asks for clarification regarding the timeline mentioned (Q2–Q3), specifically whether it refers to the completion of the internal Commission work or to a later stage, such as publication of the legal text after discussions with Member States. He also asks for a rough estimation about when the text will be formally published. Elaine O’Connell (European Commission) clarifies that the current internal drafting work within the Commission is expected to be completed by Q2–Q3 this year. This timeline refers specifically to the internal preparation stage, after which the process will move to the subsequent institutional steps. She further clarifies that the Commission aims to publish the draft text for consultation with Member States, NRAs, and stakeholders by Q2-Q3. After collecting feedback, the Commission will review the comments and adjust the text if necessary. Once finalised, the document will be sent to the European Council and the European Parliament as a delegated act. The Parliament and Council’s assessment will last around two months; moreover, they cannot amend individual articles —only accept or reject the text as a whole. If no objections are raised by the Parliament or the Council, the act will then enter into force.

Flemming Brinch Nielsen (ENTSO-E) asks whether ACER’s workstream outputs will be integrated into the draft and raised the importance of the NC DC, noting that it may be even more critical than RfG, and asks about the expected timeline. Elaine O’Connell (European Commission) confirms that workstream’s results are being integrated into the current drafting process. The NC DC will be the next priority after RfG, though no timeline can yet be provided. Flemming Brinch Nielsen (ENTSO-E) suggests that, if timeline unclarity continues, the Commission should share updates on key topics under discussion, as many Member States currently rely on the 2023 draft from ACER. Early information would help stakeholders continue their work with more certainty.

Thorsten Buelo (SolarPower Europe) asks whether the current work mainly involves editorial revisions of the draft text or if substantive changes are also being introduced. Elaine O’Connell (European Commission) responds that most changes are editorial, with some potential adjustments being considered, particularly to clarify requirements for smaller generators.

Srinivasa Raju (EUGINE) asks whether there will be a transition period for manufacturers once the code enters into force. highlights that manufacturers need sufficient time to adapt to new requirements, suggesting that at least two years would be necessary to implement changes in power plant projects. Elaine O’Connell (European Commission) confirms there will be an entry-into-force transition period (similar to the three-year period used previously, though possibly shorter). She also emphasises that the publication for feedback will be a genuine consultation, meaning changes could still occur after stakeholder comments.

Aren Assiet (EUGINE) emphasises the importance of distinguishing between plant-level, site-level, and unit-level requirements. He noted that this distinction is currently not well reflected in CENELEC product standards, which could create alignment challenges with grid connection rules.

Florentien Benedict (EU DSO Entity) asks for clarification on the consultation process, specifically whether the ESC members will see the draft text and whether the “Have Your Say” public consultation is separate or the same as the consultation with Member States and NRAs. She expresses uncertainty about how the stakeholders group fits into the overall process. Elaine O’Connell (European Commission) clarifies that the same draft text will be shared simultaneously with Member States/NRAs and published on the Commission’s “Have Your Say” platform for a one-month public consultation.

2. ACER – Data Centres connection requirements

Uros Gabrijel (Chair) updates stakeholders on the new informal discussion stream created on the connection requirements for Data Centres.

Lex Coors (EUDCA) welcomes the direct engagement with ACER and stresses that revised grid code requirements must consider data centre capabilities and demand. He highlights that the EU aims to triple data centre capacity by 2025–2030 to support AI and cloud infrastructure, which could significantly impact grid upgrades.

Lex emphasises the need for a collaborative approach, transparency, harmonisation, and a transition period, focusing on new data centres to avoid overhauling existing infrastructure. He warns that a misaligned approach could force costly changes and disrupt services, underlining the importance of integrating data centre growth into grid planning.

Gunnar Kaestle (COGEN) asks about the regulatory structure, specifically the difference between including data centres requirements in the revised NC DC versus creating separate provisions for data centres. He questions why a specific approach for data centres is needed instead of integrating these aspects into the revised NC DC.

Lex Coors (EUDCA) explains that the main issue is the current technical limitations of data centres infrastructure, which cannot immediately provide the level of instantaneous grid support being discussed. Meeting such requirements would require significant changes to infrastructure, including UPS systems and switchgear.

Flemming Brinch Nielsen (ENTSO-E) clarifies that discussions about flexibility involve two different concepts: market flexibility (where users voluntarily participate in energy markets) and grid connection requirements (which relate to system robustness and resilience during grid events).

3. ENTSO-E updates

Juan Giner (ENTSO-E) updates the participants on three main topics:

3.1. ENTSO-E position paper on CNCs 2.0 & data centres

ENTSO-E published a position paper in December 2025 (link [here](#)) recommending TSOs to update national technical connection requirements to support power system stability needs. The paper also encourages alignment with ACER’s recommendations on CNC 2.0 as well as with the outcomes (i.e., common result) of ACER’s workstreams on CNC 2.0.

An annex includes recommended minimum harmonised connection requirements for data centres, largely based on existing requirements for power-to-gas demand units, with additional provisions reflecting data centres’ specific load behaviour (i.e., load-induced forced oscillations).

3.2. IGDs: feedback on stakeholders’ request from past GC ESC meeting

Following stakeholders’ feedback from the December meeting, ENTSO-E agrees to organise workshops before launching public consultations on the first wave of IGDs. These workshops will present the content of the four planned IGDs and allow stakeholders to provide early feedback before formal consultation.

Catarina Augusto (Solar Power Europe) asks whether the grid-forming IGD will cover all generator types (A–D) and the DSOs roadmap, noting that previous discussions mainly focused on type C and D generators. Juan Giner (ENTSO-E) responds that the grid-forming report developed with stakeholders already addresses requirements for types A and B and that the IGD will also address the DSOs roadmap but only at a high level rather than in detail. Tony Hearne (DSO Entity) adds that the roadmap will speak to the timing of when the requirements of designated categories of PPMs will become mandatory.

Luca Guenzi (EU Turbines) mentions that public consultations on the IGDs can only take place after the network code enters into force, as the final legal text and article references must be confirmed. Juan Giner (ENTSO-E) explains that the ENTSO-E is considering organising informal workshops beforehand to present the content and gather preliminary stakeholders' feedback. The exact timing has not yet been decided, but it may be discussed further at the June GC ESC meeting, once the work has progressed.

Herve Biellman (EU Turbines) asks about the expected timing for the LFSM topic, and whether it would be addressed this year or next year. They also suggested organising two workshops with sometime between them to allow stakeholders to prepare and provide feedback. Juan Giner (ENTSO-E) explains that once RfG 2.0 enters into force, ENTSO-E will have six months to publish the four IGDs, including a four-week public consultation within that period.

Angelo Lo Brutto (CENELEC) asks about the ENTSO-E position paper, which recommends that countries begin updating national technical connection requirements. He notes that some countries are already implementing elements of CNC 2.0 (e.g., requirements for batteries, grid-forming capabilities, power-to-X, and data centres), while others may only start the process now. There are concerns that starting national updates before the final EU framework is adopted could create complications if requirements change later and asks whether the EC can provide any feedback on this approach. Elaine O'Connell (European Commission) clarifies that the EC is the legislator for the delegated act, not ENTSO-E or ACER, and, therefore, the formal legislative process must be followed. She acknowledges stakeholders' concerns about timing and uncertainty but noted that the Commission cannot guarantee that all elements of ACER's recommendation will remain unchanged, as the proposal still needs to go through the Commission's review process.

Flemming Brinch Nielsen (ENTSO-E) stresses the urgent need for harmonised EU connection requirements and notes that the slow adoption of EU regulation is a challenge for system operators. Connection requests are increasing rapidly, meaning many new assets are being connected without the functionalities the future power system will require.

Steffen Eckstein (EU Turbines) raises concerns about LFSM requirements and the lack of harmonisation across countries. Manufacturers see different interpretations of how LFSM should function, which creates challenges.

Vidushi Dembi (WindEurope) suggests continuing the work from the technical groups on grid forming and forced oscillations, particularly the script developed during the TG FO. She proposes options like quarterly update meetings or ongoing collaboration to address open points and improve outcomes, either within the larger GC ESC group or separately.

Florentien Benedict (DSO Entity) raises remarks regarding the tasks related to the active involvement of IGDs of EU DSO Entity in CNCs 2.0.

Flemming Brinch Nielsen (ENTSO-E) acknowledges the importance for IGDs to facilitate implementation at the national level, and clarifies that ENTSO-E has the legal mandate to draft IGDs.

3.3. NC RfG and NC DC legal wording inconsistencies

ENTSO-E has identified several inconsistencies between different network codes. Non-exhaustive examples are presented to raise awareness and support further discussion on resolving these issues. The Chair suggests organizing a dedicated workshop¹ to have more time to address this issue, also considering that DSO Entity states that some inconsistencies have been detected by them as well.

The slides covering all the subitems are accessible [here](#).

¹ **Later update:** The workshop on RfG inconsistencies was cancelled due to timing constraints, as per the email sent by Serdar Bolat (EU DSO Entity) on 24 March. Participants are invited to refer to the email for further details.

4. EU DSO Entity updates

4.1. General overview

Florentien Benedict (DSO Entity) presents on European Grids Package. It was published before the end of 2025 and the presentation focused on recommendations. Key points covered include guidance on efficient and timely grid connections, specifically Recommendation 5 (Direct Lines) and Recommendation 19 (Hybridization), within the Guidance on efficient and timely grid connections – non-legislative EU document

For Direct Lines, concerns about penalties, technical control at interfaces, and clear compliance responsibilities are highlighted. For Hybridization, the focus is on integrating storage or new loads at existing connection points, ensuring alignment with technical conditions in the network code.

The presentation includes thresholds for power generating module-based retrospective compliance (e.g., $\pm 50\%$ Pmax as recommended by the ESC EG, rather than the $\pm 20\%$ in the draft NC RfG 2.0), clear national allocation of units to modules, treatment of new storage as separate modules, and sharing rules for existing plants. Emphasis is placed on ensuring safe power flows, preventing overloads upstream as well as at connection points, and using contractual or technical measures (e.g., active network management, module output reduction per Article 14). The Commission's proposals were considered useful but require careful attention to technical and regulatory requirements.

Michael von Bossuyt (IFIEC) says that direct lines are already widely used with industrial consumers, so the issues raised may be overstated. Regarding hybridization, when load is involved, obligations fall under the DCC code (site level), while RfG applies at the machine level. Existing installations with load are already covered by DCC 1.0 or will be by DCC 2.0, though connections linking generation with other generation or storage remain a separate consideration.

Florentien Benedict (DSO Entity) agrees that direct lines are already established in many Member States, though implementation varies slightly between them. While widely known and part of existing legislation, the European Commission is now focusing on ensuring a consistent and open approach across the EU.

Flemming Brinch Nielsen (ENTSO-E) says that it is considered part of the PPM and covered by current rules. Direct lines, especially for co-located systems, introduce new requirements, agreements, and bidirectional capacity, which can create inconsistencies between RfG and DC and impact system stability. Direct lines integrate more easily in transmission than distribution systems. This topic requires a dedicated discussion due to its complexity.

Vidushi Dembi (WindEurope) agrees with Florentine's points and notes that many open issues remain. She asks how to proceed, suggesting the possibility of addressing hybridization through IGDs, and request clarification on the plan of action.

Mike Kay (GEODE) notes that hybridisation is complicated due to differing national interpretations. He suggests that the Commission should consider the existing national landscape, and that solutions either need to be addressed nationally or require central action to change the current situation.

The Chair remarks that, assuming stakeholders come up with a concrete proposal to harmonize this matter, this would completely change some practices in MSs, potentially representing an obstacle in the adoption phase for the EC. Elaine O'Connell (European Commission) says that the Grid Connections guidance aims to clarify options within the existing legislation to enable more grid connections amid congestion, without changing the law. There are currently no plans to amend legislation, the focus is on identifying safe and reliable ways to connect more assets. Workshops with member states and NRAs are planned to share best practices.

Thomas Schaupp (CENELC) suggests urging the Commission to begin work on RfG 3.0 in 2026, emphasizing that preparation should start even before finalizing RfG 2.0, with capacity reserved for 2027, to avoid long delays. The Chair remarks that any formal work on CNC 3.0 shall be triggered after the adoption of all 3 amended codes. Nevertheless, it does not preclude GC ESC members starting informal discussions. Therefore, ACER will trigger in September 2026 some informal discussions to bring input for the next revision of the code.

The presentations on EU DSO Entity updates are accessible [here](#).

Action: A discussion on hybridisation will be triggered by ACER in September. In the June GC ESC meeting, ACER will outline some ideas on how to structure this work.

5. ESC EG on Certification on EVs/HPs updates

Mike Kay (GEODE) presents, covering topics on EG Report and Technical Annex to RfG NC. On Heat pumps workstream, Melanie Auvray (EHPA) updates that the workstream has worked intensively over recent months. A near-final draft of the report was prepared, with discussion and minor open questions to be finalized with experts by 20 March. The final document will first circulate within the Heat Pump group, then to the broader expert group. Final discussion is expected in June.

On EVs workstream, Mike continues the updates. The focus was on finalizing the Technical Annex and drafting the report, based on the ACER drafts from December 2023. A consultation on the draft Technical Annex ran for three weeks in January/February, having 17 responses and 210 comments (half technical, half editorial). About half of the technical comments were incorporated, others were clarified or not acted on. Meetings with the European Commission and ENTSO-E addressed open issues, with two minor points remaining to be finalized with ENTSO-E (on frequency measurement accuracy for LFSM and on post fault active power recovery time). The report structure includes: legal provisions, governance, technical content, consultation summary, and recommendations. Recommendations include adoption by the EC as part of NC RfG 2.0, future actions for international standard bodies, and suggestions for future work to socialize and implement the technical requirements. Key issues discussed include early certification of compliant vehicles, legal certainty for technical requirements, and clarifying the classification of DC EV and battery combinations.

Flemming Brinch Nielsen (ENTSO-E) notes that extensive internal discussions took place on the report and amendment proposals. Quick agreement is needed to progress the harmonized certification process. Once the report is finalized, official approval is required, which may take several weeks and cannot be expedited, as it depends on the number of revisions, finalized topics, and outstanding technical issues.

The Chair clarifies that no major revisions shall be expected. Once the finalized technical annex is sent to the GC ESC, members will have approximately two weeks to review and respond. If no comments are received, it will be considered approved, any comments will be addressed as needed. First, stakeholders have therefore 10 working days to submit comments on the draft to the EG Chair Mike Kay (GEODE) (to be sent by email). After that, the final version with any track changes will be circulated. For the second phase, the Chair asks that only changes as a result of closing the open issues should be commented on in the final version, within additional 5 working days. Comments submitted after the deadlines will not be considered.

Thomas Schaupp (CENELEC) raises a concern about the Technical Annex for heat pumps and EVs noting that including detailed technical specifications directly in the RfG legislation risks maintainability issues and potential legal conflicts. Much of the text is copied from older versions of standards (50549-1/2/10) tied to RfG 2016, creating a deadlock: updating the standards could conflict with RfG 2.0, while leaving them unchanged would make them legally misaligned. Moreover, Thomas Schaupp (CENELEC) suggests moving the content of the draft technical annexes from the CNC into a "harmonized standard" mentioned in the so called 'Blue Guide', for which the EC should be responsible to assess conformity to the regulation on a periodical basis. Mike Kay (GEODE) acknowledges CENELEC concerns and agrees that relying on harmonised standards could be ideal but questioned whether standards organisations can deliver in time for the RfG introduction. He notes that the Technical Annex was drafted to be "future-proof," referencing 50549-1 and 50549-10 only to illustrate approaches without imposing additional requirements beyond the interoperability requirements of NC RfG 2.0. While workable from a technical perspective, the ultimate decision and implementation approach rests with the EC.

Elaine O'Connell (European Commission) emphasizes that the primary goal of the RfG is system stability and that essential technical requirements cannot be fully outsourced to standardization bodies. While harmonised standards can support implementation, the balance must be maintained so that legislation remains clear and accessible without requiring purchase of technical standards. Elaine O'Connell (European Commission) clarifies that the EC would be open to listen to alternative solutions, thus she encourages collaboration between experts and the EV workstream of the EG on certification to explore whether the annex can accommodate these comments, noting that this will be reviewed in the coming weeks.

Srinivasa Raju (EUGINE) highlights that while harmonisation of definitions is a positive step, manufacturers still face challenges because binding requirements vary across Member States, making it difficult to produce a single product suitable for all markets. However, further discussions highlight that compliance with exhaustive requirements in harmonised standards allows a product to be presumed compliant with the RfG, enabling connection, whereas non-exhaustive requirements mainly involve parameterisation adjustments, not requiring designing different appliances. Flemming Brinch Nielsen (ENTSO-E) agrees that EV requirements are exhaustive and uniform across Member States but expresses caution about freezing requirements in a technical annex, as it could limit future updates if adjustments are needed. Expressing support to CENELEC proposal, he notes that the current work and the draft report can be reused, nothing would be lost, and would be in favour to identify a flexible solution that allows updating standards over time, emphasizing the need for timely development.

Bernhard Schowe (EFAC) remarks that the EG ToR was intended to provide a harmonized framework for certification. He would remain open to have it in the standard for testing. However, a reference to the standard either in RfG or in the tech annex would be needed to link the documents.

Julian Treichel (CharIN) notes that the expert group was hesitant to rely on standardisation for EV compliance, emphasizing that vehicle type approval only references EU regulations, not standards. He highlights that mandatory and stable requirements are crucial for interoperability between EVs and EVSE across countries, as frequent changes in standards would hinder manufacturers. The current technical annex, largely based on EN50549-1 but referencing EN50549-10 (2022), provides stable requirements, and there may still be ways to incorporate flexibility while keeping it final. It is also noted that the Technical Annex is already finalized, though different options for its integration were previously discussed. In addition, two members of Working Group 3 who are part of the Expert Group expressed reservations regarding the proposals. Thomas Schaupp (CENELEC) clarifies that RfG is the relevant document to refer to, since it includes the technical requirements. Standardization is voluntary, but in the case for harmonized standards, conformity is proven by EC. A suggestion to organize separate workshop with the EC on this matter is shared.

Flemming Brinch Nielsen (ENTSO-E) remarks that many different compliance schemes for this kind of asset cannot be foreseen. Relevant system operators usually verify compliance at the national level. The content / purpose of the technical annex is not under discussion, rather how the content it is framed. The most appropriate solution shall be identified aiming at not delaying the RfG 2.0 adoption.

The Chair highlights that the outcome of the EG work will be submitted to the EC as input to finalize the RfG 2.0 text to be consulted. Moreover, he clarifies that DG MOVE is already involved on this matter. Nevertheless, it is not known at this stage how the EC intends including these annexes and in which form.

The discussion ends with an action point to Mike Kay as Chair of the EG on certification of EVs and HPs to assess internally the comments received.

The slides on Certification on EVs & HPs can be found [here](#). The Technical Annex, dated as of 26.02 is accessible [here](#).

Action: GC ESC members to review the draft Technical Annex and provide any comments as soon as possible. The deadline for comments on the current draft is 10 working days, by 18 March. The final version to be sent to the GC ESC members.

6. EUGINE – Gas reciprocating units connected to the HV grid

Freddy Alcazar (EUGINE) addresses the topic on technical feasibility of power system stabiliser (PSS) compliance in engine power plants. Existing PSS protocols are tailored for turbines and applying them to gas engines can lead to inaccurate assessments due to differences in natural frequencies and exciter types. Additionally, smaller gas engines (typically under 25 MW) contribute less to grid oscillations, and standard voltage steps may not effectively capture their performance.

Gas engines also operate over a broader frequency range (1.5–5 Hz) compared to turbines (0.3–2.5 Hz), which reduces the damping effectiveness within the PSS-required frequency range of 0.3–2 Hz. This creates a gap between current compliance requirements and the actual behaviour of gas engine units.

To address these issues, EUGINE suggests implementing minor amendments to NC RfG 2.0, specifically to include the characteristics of prime mover technology in compliance assessments. They suggest alternative verification methods, such as system simulations, factory acceptance tests, or third-party certification, to ensure accurate measurement of PSS performance. These adjustments are seen as urgent because current rules can delay the connection of plants, and implementing small, targeted changes would improve verification processes and support safe and efficient integration of gas engines into the grid.

Flemming Brinch Nielsen (ENTSO-E) questions whether the issue is significant enough to justify changes in NC RfG 2.0. He suggests that minor problems could instead be handled through derogations, avoiding delays in finalising the regulation adoption. If the issue proves to be more substantial at a later stage, it could be addressed in RfG 3.0. He also emphasises that the regulation should remain based on system requirements rather than technology-specific considerations, noting that RfG 1.0 successfully harmonised connection requirements across EU and avoided special rules for particular generator types. The Chair remarks that ACER would likely not be in favour of derogations as preferred way forward. Therefore, the Chair suggests using the workshop on legal wording inconsistencies to further discuss the issue.

Steffen Eckstein (EU Turbines) says PSS is a critical topic for SPGMs, and Power Oscillation Damping (POD) for Power Plant Modules (PPMs) also needs to be considered. The discussion highlighted that frequency and oscillation areas are separate issues, both important for optimizing power system stability. While a solution cannot be reached in this session, it was agreed that this topic should remain on the list of open points. Optimizing PSS involves costly studies for manufacturers and plant operators, so unnecessary work should be avoided if not needed. The key takeaway is that PSS and POD require dedicated discussion.

The slides are accessible at the following link [here](#).

7. CENELEC updates

Alberto Cerretti (CENELEC) presents the overview of ongoing standardisation activities and the working programme. The group is preparing new editions of standards (e.g., 50549 series) in anticipation of RfG 2.0, with plans for updates before and after its publication. Several projects are ongoing, including work on compliance testing and a new proposal on grid-forming capabilities, which aims to align with chapters of the Grid Forming Capability report.

Angelo Lo Brutto (CENELEC) explains that grid forming is currently a major trend in standardisation, with many related initiatives starting in IEC and other organisations. However, coordination across these activities is limited, making it difficult to track all developments. He also warns that, if international standards progress without alignment with European work, it could create market issues and lead to increased costs. CENELEC is trying to follow these developments and accelerate technical specifications, although progress depends on the publication of RfG 2.0. Alberto highlights that delays in publishing RfG 2.0 may lead to fragmented national solutions in Europe, as countries start defining their own grid-forming requirements. These risks creating two different standardisation frameworks globally, which could significantly increase costs. Florentien Benedict (DSO Entity) acknowledges the concern and committed to raising the issue within the EU DSO Entity organisation. She also suggests preparing a short note or paper explaining the problem to strengthen the European position and help coordinate support from stakeholders such as DSOs and TSOs.

Thomas Schaupp (CENELEC) adds that efforts are being made to represent the European approach in international discussions e.g., within IEEE/IEC working groups. However, this is considered challenging because well-established groups in other regions already dominate these forums, making it difficult to introduce European perspectives.

Regarding the liaison offered by CENELEC, Marco Zaccaria (ENTSO-E) remarks that direct support for the liaison was not possible. Nevertheless, some TSOs experts are already involved through related standardization working groups, which partially addresses the issue. It is suggested to launch another internal call for participation, likely through individual TSOs rather than formal ENTSO-E involvement, as that would be simpler to organise. The importance of prioritising this call for membership was emphasized.

Flemming Brinch Nielsen (ENTSO-E) confirms support for promoting participation in the standardisation work and the call for individual TSOs experts to get involved. However, participation from ENTSO-E side can be challenging because any position must first receive mandate and / or approval from the relevant internal committee. He notes that standardisation processes represent a challenge due to voting dynamics. Nevertheless, TSOs recognise the importance of grid-forming issues, and many have already started issuing related requirements, as this technology is expected to play a key role in the near future.

The Chair remarks that there is significant expertise on grid-forming within the TSO and DSO communities and encourages individual TSO and DSO participation in the related standardisation works.

The slides can be found [here](#).

8. AOB

The Chair notes that previously raised topics had already been addressed, including Thomas Schaupp's (CENELEC) presentation and Luca Guenzi's (EUTurbines) comment. Aren Assiet's (EUGINE) AOB suggestions on follow-up discussion on grid modelling and the common grid model is postponed to the next meeting.

Furthermore, although suggested by stakeholders, a separate workshop involving DG ENER and DG MOVE to ensure consistency with further EU regulations has been considered unnecessary, as discussions are already ongoing within the EC and outside the GC ESC framework.

Joint SO ESC/GC ESC session

(3 March 2026, 15:30-15:45)

The joint SO ESC/GC ESC session can be found in the 3rd March 2026 - SO ESC minutes – link [here](#).

Annex: Action Tracker

#	Raised on	Topic	Description	Responsible	Due date
1	GC ESC 19/03/2025	FMI & software standards	To open the discussion again later in 2026	EUGINE & ENTSO-E	2026
2	GC ESC 05/06/2025	Baltic region synchronisation with the Continental Europe system	To investigate synchronisation of Baltic region and report back during the next meeting on the requirements that currently apply to the Baltic region regarding the voltage ranges	ACER	TBD
3	GC ESC 18/09/2025	ENTSO-E TG FO	ENTSO-E to inform GC ESC once the report from the TG FO is published	ENTSO-E	When published
4	GC ESC 04/03/2026	Expert Pannel on Iberian Incident	Organise workshop to present the final report on Iberian Peninsula Incident Expert Panel	ENTSO-E	After Final report publication – Q2 2026
5	GC ESC 04/03/2026	Workshop on hybridization	ACER to organize a workshop and outline ideas on how to structure this work.	ACER	September 2026
6	GC ESC 04/03/2026	EG report on EV and EVSE	All stakeholders to review and provide final comments to the draft EG Report (including the topics on Technical Annex). The final version to be sent to GC ESC members.	All ESC GC members & Chair of EG Certification	18 March 2026