

96th System Development Committee Meeting

Date: 29 March 2023

Time: 09.00-12.00h

Place: Web-conference

Participants

Chairman

| | | |
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| | Amprion | Germany |
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Vice Chairman

| | | |
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| | RTE | France |
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Members

| | | |
|-----|--------------------------------------|-----------------------------|
| 1. | Amprion | Germany |
| 2. | AS Augstsprieguma tikls | Latvia |
| 3. | Creos Luxembourg | Luxembourg |
| 4. | Crnogorski elektroprenosni sistem AD | Montenegro |
| 5. | Elering | Estonia |
| 6. | Eles | Slovenia |
| 7. | Elia System Operator | Belgium |
| 8. | EMS | Serbia |
| 9. | Energinet | Denmark |
| 10. | ESO-EAD | Bulgaria |
| 11. | Fingrid | Finland |
| 12. | HOPS d.d. | Croatia |
| 13. | Litgrid | Lithuania |
| 14. | MEPSO | Republic of North Macedonia |
| 15. | PSE | Poland |
| 16. | RTE | France |
| 17. | Seps | Slovakia |
| 18. | SONI | Northern Ireland |
| 19. | Statnett | Norway |
| 20. | Swissgrid | Switzerland |
| 21. | TenneT TSO BV | Netherlands |
| 22. | TransnetBW | Germany |

Substitutes

| | | |
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| 23. | 50Hertz Transmission | Germany |
| 24. | APG | Austria |
| 25. | Ceps | Czech Republic |
| 26. | IPTO | Greece |
| 27. | Eirgrid | Ireland |
| 28. | REE | Spain |
| 29. | REN | Portugal |
| 30. | TenneT TSO GmbH | Germany |
| 31. | Terna | Italy |
| 32. | Transelectrica | Romania |
| 33. | VUEN | Austria |

Conveners StGs and WGs and RGs

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|----|--|-------------|
| 1. | StG TYNDP 2022 | Spain |
| 2. | StG WG Scenario Building and WG System Design Strategy | Netherlands |
| 3. | WG Assets, Implementation and Management | Slovakia |
| 4. | StG Connection Network Codes | Germany |
| 5. | DT CBA | Germany |

Conveners RGs

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| 1. | RG North Sea | Netherlands |
| 2. | RG Baltic Sea | Germany |
| 3. | RG Continental South-East | Serbia |
| 4. | RG Continental Central East | Czech Republic |

Secretariat

| | | |
|----|---------|--|
| 1. | ENTSO-E | |
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Excused

| | | |
|-----|--|--------------------|
| 23. | Landsnet | Iceland |
| 24. | Mavir | Hungary |
| 25. | NOSBiH | Bosnia&Herzegovina |
| 26. | OST-Operatori i Sistemit te Transmetimit | Albania |
| 27. | Svenska Kraftnät | Sweden |
| 28. | Transmission System Operator-Cyprus | Cyprus |

1. Attendance, quorum and approval of draft Agenda

The SDC Chair welcomes all participants to the 96th SDC meeting. He welcomes the new substitute members from APG and Terna. The Chair also thanks the former ODCG Convenor for her tremendous work. The new ODCG group has two new co-convenors now. A warm thank-you event will be held at a later moment in a physical meeting.

The ERAA item (*Topic 11*) will be taken earlier due to an overlapping Electricity Coordination Group meeting. The rest of the agenda is approved without further changes. The meeting is quorate. The SDC Chair confirms that participants can formally cast their vote via teleconference on the decisions proposed during the meeting.

DECISION

33 out of 39 of the TSOs represented in the System Development Committee are attending the meeting, the SDC Chair states that the Committee meeting reaches the necessary quorum of half its members.

2. SDC Planning Programme

2.1. SDC Dashboard: Progress on products and resources

The SDC Programme Manager highlights the group keeps a close eye on data collection and quality processes which are in a critical phase now for next ERAA, TYNDP and Outlook. Teams are interacting well, but work could be improved with further TSO support. The Program also focuses on coordination of Scenarios and ONDPs for the reference grid and investment candidates. The group also takes the responsibility to guide and review the SDC budget preparations for 2024.

The Head of Section informs the Committee of the overview of TSO resources across SDC work areas which is made available now. The Chair reminds the Committee that a call for members for the StG Data & Models is open with limited response so far. This group is the basis for most SDC work. He gives a strong encouragement to all to provide a proportional contribution.

2.2. Follow-up of SDC projects and projects communication plans

The Secretariat's Programme Manager presents the communication plans which all together are meant to provide a structured overview of all system development communication efforts. Few points for attention (risks and uncertainties) and follow-up actions are presented. Any follow-up action to ACER's opinion on TYNDP 2022, which is expected to be available very soon, will be brought to the SDC based on guidance from the TYNDP StG.

DECISION

The SDC:

- approves the communication plans for the SDC Work Programme 2023.

3. Report from Board Strategy Workshop and Board meeting; 1-2 March 2023

The Chair reports on a recent Board Strategic Workshop and Board meeting. Topics included the TYNDP2024 initiation and the ENTSO-E Vision implementation. He also summarizes recent engagements with EC on ERAA, ONDPs and TYNDP scenarios.

4. SDC Strategy Seminar 2023 – Selection of topics proposed

Following a collection of proposals from SDC and WG SDS members, the proposed topic for the 2023 SDC strategy seminar is to focus on hydrogen and integrated planning. The WG SDS convenor will evaluate how to tackle additional ideas formulated in the meeting, in the seminar or in another setting. A specific proposal is made to cover SDC's modelling strategy. The Chair acknowledges the importance of the topic, and to ensure solid technical proposals are made first by experts for SDC review, he asks the new StG D&M to initiate this.

DECISION

The SDC:

- approves the main theme of “Hydrogen & integrated planning” for the SDC Strategy Seminar 2023 on 20 June 2023.

5. StG Connection Network Codes

5.1. Status update on the amendment process

The Steering Group Convenor for the Connection Network Codes (StG CNC) informs that the process for amending Requirement for Generators (RfG) and Demand Connection Network Codes (DC NC) continues after the ACER public consultation for proposals. In this stage the StG CNC and its Code Assessment Team is reviewing all stakeholders' proposals and elaborating ENTSO-E's in stakeholder meetings attended also by ACER.

The Convenor informs that ACER presented a proposal to include electric vehicles in the NC RfG and NC DC.

The Convenor informs that ENTSO-E and the EU DSO Entity assessed each other's proposals submitted to ACER's public consultation, and continue collaborating in line with their Memorandum of Understanding. There remain diverging views on ENTSO-E's amendment proposal of RfG on Grid Forming Capability and RoCoF withstand capability (especially for type A, B and partially C power park modules). The EU DSO Entity produced a position paper in this regard. Following exchanges with the DSO entity and ACER, ENTSO-E prepares for a CBA on various technology options (e.g. synchronous condensers) for grid forming capability at transmission and/or distribution level.

The Convenor informs the Committee on dedicated meetings with EU Turbines, Eurelectric and VGB, following the request of these stakeholders in the Grid Connection European Stakeholders Committee (GC ESC), regarding their statements on physical constraints to comply with the RoCoF withstand capability.

The Convenor reports that after several discussions on ENTSO-E's proposal on Grid Forming Capability, ENTSO-E and WindEurope produced a joint paper in which WindEurope supports the current proposal, subject to the development of an Implementation Guidance Document (IGD) to enable some harmonization nationally.

DECISION

The SDC:

- supports the position taken by StG CNC on connection requirements for electric vehicles.

- approves the initiation of an ENTSO-E project to develop a CBA on grid forming capability of power park modules connected to distribution grids.
- endorses the proposed modification of the initial ENTSO-E amendment proposal on RoCoF immunity (4Hz/s) to allow an exception for synchronous power generating modules of high inertia constant (H).
- takes note of the common paper developed between WindEurope and ENTSO-E on grid forming capability.

5.2. PID: Task Force Dynamic Performance of Grid Forming Capabilities for Power Park Modules (PPM)

The StG CNC Convenor presents a proposal for a new project to support the ENTSO-E amendment proposal for Grid Forming capability (in NC RFG) with a well-defined range of technical parameters as well as with a detailed definition of the expected dynamic performance.

DECISION

The SDC:

- approves the Product Initiation Document for the new project TF “Dynamic Performance of Grid Forming Capability for Power Park Modules”.

5.3. Implementation Monitoring Platform v2

The StG CNC Convenor informs that the Implementation Monitoring Platform has new capabilities that enable an extended data gathering on generation capacities from this year onwards.

5.4. Final IGDs on compliance verification

The StG CNC Convenor recaps that in 2021, StG CNC published an updated version of the IGD on Compliance Verification - Compliance Testing and use of Equipment Certificates. In 2022, two related IGDs were drafted on “Compliance Verification - Using Electrical Simulation Models” and “Compliance Verification - Compliance Monitoring after final operational notification”. During Q1/2023, the StG CNC and its TGMT launched a public consultation on both draft IGDs.

DECISION

The SDC:

- approves the Implementation Guidance Document on Compliance Verification - Using Electrical Simulation Models.
- approves the Implementation Guidance Document on Compliance Verification - Compliance Monitoring after final operational notification.

Final Minutes

6. WG Asset Implementation & Management

6.1. New Workstream 4 „Asset Renewal Observatory”

The WG AIM Convenor presents a proposal for a new workstream to assess quantitatively the level of investments needed for asset renewals and best practices. The Committee supports the initiative and asks to bring a concrete workstream proposal in a next SDC meeting.

The Chair takes the opportunity to add that the EC published a proposal for a Net-Zero Industry Act. He asks that WG AIM works with RDIC and PCG to develop a position.

DECISION

The SDC:

- endorses the proposal of an additional Workstream reporting to WG AIM on "Asset Renewal Observatory".

7. TYNDP 2024

7.1 Progress report

The TYNDP 2024 Convenor informs on the upcoming ACER opinion for TYNDP 2022 and its main points as shared in the Cooperation Platform. These need to be considered for TYNDP2024. A well-attended SDC workshop took place on 28 March 2023 to review the new TYNDP reference grid proposal and investment candidates.

7.2. Update on CBA 4.0

The DT CBA Convenor informs on the main methodology updates included in the latest draft Guideline. Next steps include an SDC written approval in coming weeks to have submission by end of April.

8. WG System Design Strategy

8.1. ENTSO-E's answer to ACER consultation on Cross Border Cost Allocation (CBCA) recommendations

The WG SDS Convenor and Secretariat Program Manager give context on the ongoing work by ACER for CBCA recommendations. ENTSO-E's proposed answer to ACER's public consultation is based as far as possible on existing positions. Before its submission to ACER the answer will be updated with the latest improvements proposed by SDC members before and during the meeting.

DECISION

The SDC:

- approves the ENTSO-E input to ACER's consultation on CBCA recommendations.

9. Scenario Building 2024

9.1 ToR of ENTSOs Scenario Stakeholders Reference Group

The Secretariat presents the proposal of the WGSB StG to implement ACER's scenario framework guidelines of a Scenario Reference Group, with focus on it being an External Technical Advisory Group. The group is meant to be established in coming months to tune in to the TYNDP2024 scenario work and be fully engaged at the start of the 2026 cycle.

DECISION

The SDC:

- approves the draft ToRs of the TYNDP 2026 Scenarios External Technical Advisory Group (ETAG) as a basis for discussion in the group's first meeting.

10. Offshore Network Development Plans 2024

10.1 Progress report

The Secretariat presents progress on the ONDPs 2024. The list of offshore nodes is under review and confirmation by the RGs by 5 April. Next, the list of nodes will be delivered to the TST, for implementation in the ONDP models. The TST is also finalizing models based on DE 2022 scenarios. In the next three weeks the RGs will define the potential links between the expandable offshore nodes and finalize the info needed to start the simulations.

10.2. Interactions with EC and Member State – communication strategy

The Secretariat informs on ongoing exchanges with EC on ONDP Member State engagements.

11. ERAA 2024 and beyond

11.1. EC interaction on future ERAA purpose

The Head of Section presents state of play in ongoing interactions with ACER and EC on ERAA. In context of the EMDR, the EC stated in a working document they will work with ENTSO-E and ACER to review the ERAA process. ENTSO-E tabled options for a methodology review for discussion with EC. The Committee mandates the ERAA 2023 StG to take further initiative to develop options for ERAA methodology review, and keep the Committee informed of progress.

DECISION

The SDC:

- mandates the ERAA 2023 StG to develop proposals for ERAA methodology review.

11.2. Preparation of flow-based domains for future ERAA

The Secretariat Adequacy Manager reminds the Committee that flow-based modelling in ERAA is not an option in the methodology, but a direct requirement in the Regulation. He presents the status of

implementation for 2023 and next years. Due to resource limitations, the project team proceeds with seeking additional support for the Core region. A Nordic TSO member supports the ambition set and informs that also Nordic TSOs are continuing work in delivering Nordic flow-based domains for ERAA with external support; good progress is made. Several members give explicit support that additional contractual support is needed to deliver on this priority, while in the longer run such competence and knowledge must be maintained within ENTSO-E via dedicated TSO resources or Secretariat staff. The Head of Section informs on progress in procurement for external support. If a contract with an external party would be concluded, this would necessitate the sharing of relevant grid models. The Committee asks that members are informed about what this includes and that a quality check of the shared model is ensured.

One member abstains for the second decision proposal.

DECISION

The SDC:

- takes note that the preparation of flow-based domains for the ERAA 2024 requires additional contracted support.
- approves the disclosure of the relevant TYNDP2022 grid models, CNECs and corresponding market data to enable at least the flow-based domain creation in the Core region, subject to ENTSO-E confidentiality rules.

12. StG Data & Models

12.1. Approval of PECD 4.0

The Secretariat gives an update on the development of the new Pan-European Climate Database 4.0, developed with C3S, and providing a substantial step forward to have future climatic time series based on actual climatic projections. An internal consultation was initiated some weeks ago on new datasets and planned next steps. The consultation was extended and is still ongoing. SDC will be asked at a later stage to validate the readiness of the PECD, while application in an SDC study is subject to decision by the relevant StGs and to be monitored by the SDC Programme Management.

One member votes against the decision, and appreciates the opportunity to still resolve issues in the extended consultation.

DECISION

The SDC:

- acknowledges the delivery of the draft PECDv4 and the extension of deadline for the internal consultation

12.2. Nomination of Data Correspondents from TSOs

The Secretariat's System Modelling Manager gives an overview of TSO nominations for the StG D&M groups and lists of data correspondents. Members are encouraged to consider participation in the StG or its Expert Teams. Committee members take note that nominations of data correspondents are mandatory for each TSO.

DECISION

The SDC:

- decides that each TSO member is obliged to appoint or reconfirm relevant Data Correspondents (SAC, LAC, SSC and GMC).

13. Any Other Business

No other business is raised.

14. Approval of the Decisions

The Chair takes note that all decisions as shown during the meeting are approved.