

99th System Development Committee Meeting

Date & Time: 20 September 2023 from 13.30-17.30h

Date & Time: 21 September 2023 from 09.00-13.00h

Place: Hotel Devin, Riečna 162, 811 02 Bratislava, Slovakia

Participants (physical)**Chairman**

	Amprion	Germany
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Vice Chairman

	RTE	France
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Members

1.	AS Augstsprieguma tīkls	Latvia
2.	Crnogorski elektroprenosni sistem AD	Montenegro
3.	EMS	Serbia
4.	HOPS d.d.	Croatia
5.	IPTO	Greece
6.	MEPSO	Republic of North Macedonia
7.	REE	Spain
8.	RTE	France
9.	Seps	Slovakia
10.	Statnett	Norway
11.	Swissgrid	Switzerland
12.	TenneT TSO BV	Netherlands
13.	Transmission System Operator-Cyprus	Cyprus
14.	TransnetBW	Germany

Substitutes

15.	50Hertz Transmission	Germany
16.	Amprion	Germany
17.	APG	Austria
18.	Ceps	Czech Republic
19.	Elering	Estonia
20.	Elia System Operator	Belgium
21.	Svenska Kraftnät	Sweden
22.	TenneT TSO GmbH	Germany
23.	Terna	Italy
24.	VUEN	Austria

Conveners StGs and WGs and RGs

1.	StG WG Scenario Building and WG System Design Strategy	Netherlands
2.	StG TYNDP 2024	Spain
3.	StG ERAA 2023	Austria
4.	WG Assets, Implementation and Management	Slovakia
5.	RG Baltic Sea	Germany
6.	RG Continental South-East	Serbia
7.	RG Continental Central East	Czech Republic

Secretariat

1.	ENTSO-E	
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## Participants (remote)

### Members

|     |                  |                  |
|-----|------------------|------------------|
| 25. | Creos Luxembourg | Luxembourg       |
| 26. | Eles             | Slovenia         |
| 27. | Energinet        | Denmark          |
| 28. | Litgrid          | Lithuania        |
| 29. | PSE              | Poland           |
| 30. | REN              | Portugal         |
| 31. | SONI             | Northern Ireland |
| 32. | Transelectrica   | Romania          |

### Substitutes

|     |                |         |
|-----|----------------|---------|
| 33. | Eirgrid        | Ireland |
| 34. | Transelectrica | Romania |

### Conveners StGs, WGs and RGs

|    |                                              |             |
|----|----------------------------------------------|-------------|
| 1. | StG Network Connection Codes                 | Germany     |
| 2. | Vice-Convenor of PCG                         | Italy       |
| 3. | RG North Sea                                 | Netherlands |
| 4. | Offshore Network Development Plan Core Group | Denmark     |

### Secretariat

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

### Excused

|    |                                          |                    |
|----|------------------------------------------|--------------------|
| 1. | ESO-EAD                                  | Bulgaria           |
| 2. | Fingrid                                  | Finland            |
| 3. | Landsnet                                 | Iceland            |
| 4. | Mavir                                    | Hungary            |
| 5. | NOSBiH                                   | Bosnia&Herzegovina |
| 6. | OST-Operatori i Sistemit te Transmetimit | Albania            |

## Wednesday, 20 September 2023

### 1. Attendance, quorum and approval of draft Agenda

#### 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.

The SDC Chair welcomed all participants to this SDC meeting and warmly thanked SEPS for inviting the Committee in Bratislava.

He welcomed the member of CGES who is for the first time attending in person. He also welcomed the new SDC member of Elering as well as the substitutes from Amprion, Svenska Kraftnät and Terna attending for the first time in this role.

The agenda was approved as presented, with a few topics on the first day changed in sequence.

The SDC Chair indicated that he will again set up bilateral calls with each member over the coming months to capture the specific viewpoints of all members, their own priorities and possible contribution in terms of resources.

### 2. SDC Planning Programme

#### 2.1. SDC Dashboard: Progress on products and resources

The SDC Programme Manager updated on aligning the various SDC products, particularly with the ONDP and the PEMMDB for TYNDP coherence. The progress on modelling may have an impact on the timeline and scope of TYNDP. Specific focus is given to the use of the PEMMDB for future projects phases and the interfacing with TSO databases and ENTSO-E model building.

The SDC Chair highlighted the value of the upcoming SDC Conference on 17 October 2023, which is a platform for study teams and data correspondents to improve interactions and processes. The SDC members were kindly asked to provide the opportunity for the relevant experts to attend.

The Head of Section highlighted that despite the priority the Committee gave to data quality and the crucial role of data correspondents in the latest SDC Strategy Seminar, the most recent data collection for the Winter Outlook over summer struggled again from delays due to various reasons. Commitments and communication channels need to be further improved. He highlighted that an overview of all technical meetings with EC and ACER are now stored in a single repository and are accessible to all members on the ENTSO-E SharePoint SDC site.

### 3. SDC Work Programme 2024 - Final

The WG SDS Convenor presented the most recent internal SDC Work Programme for 2024. The Committee asked for clarification on the role of modelling exchange standards which were an outcome of the Strategy Seminar (will be picked up in StG D&M), and the future work of sector coupling (the dedicated TF in WG SDS is maintained for now).

## DECISION

The SDC:

- approves the SDC Work Programme 2024.

### 4. SDC Vice-Chair election – status

The Chair informed on the process for the upcoming Committee Vice Chair election.

## DECISION

The SDC:

- takes note of the process for SDC Vice-Chair election for the period 2024-2025.

### 5. Report from Assembly 28 June 2023

The Chair informed on various topics of the most recent Assembly meeting and initial meetings of the new Board. This includes preparations for the next year budget and the successful development of the updated ENTSO-E grid map.

### 6. Debrief of EU High-Level Grid Forum 7 September 2023

The Chair gave an overview of the event which saw strong CEO participation, many senior level industry participants and representatives from EC and national authorities. This gave a needed and welcome momentum for the role of grids and transmission investments in particular. The SDC products already provided important and relevant contributions and their impact will remain to be high to support coordinated infrastructure development. Conclusions are now published; these will be further followed up on and covered in next Board meeting.

### 7. SDC Strategy Seminar 2023, 20 June 2023

#### 7.1. Outcomes and next steps

The WG SDS Convenor stressed that the conclusions of the recent Strategy Seminar are made available in a short note. The Committee also discussed the need for a more streamlined scenario development and the overall collaboration with ENTISOG.

### 8. European policy update

The PCG Vice Chair gave updates on EU legislative files including the F-gas regulation, the Electricity Market Design Review, the Fit-fo-55 package, the decarbonised gas/H2 package, and the Net Zero Industrial Act.

## 9. Member applications Ukrenergó/Modelectrica

- 9.1. SDC involvement
- 9.2. Progress report

The Head of Section shared progress on the observer member application of Moldelectrica and the full member application of Ukrenergó. The Committee supported to invite Moldelectrica when observer membership is granted to SDC groups of StG D&M (to have a formal link for data correspondents), and the RGs CCE and CSE.

### DECISION

The SDC:

- approves the proposed SDC groups to be added to the Annex I of the Observer Membership Agreement between ENTSO-E and Moldelectrica (the OMA).

## 10. WG Asset Implementation & Management

- 10.1. Report "Risk Method for (optimal) Investment on Assets" as a 2024 CIGRE Session Paper and workshop on 26 October 2023

The WG AIM Convenor presented the plan to also publicly disseminate the report that inventories TSO risk methods in asset management via a CIGRE paper. This would be a technical analysis and will require some review in how the current internal document can be reshaped. In addition, an internal webinar will be held in October to further disseminate and learn from various approaches.

### DECISION

The SDC:

- approves the report "Inventory of Risk Method for (optimal) Investment on Assets" for external use.

## 11. Scenario Building 2024

- 11.1. Progress Report, including recent public consultation

The StG Scenario Building Convenor expressed his thanks to the whole WG for all the work before and over summer. To ensure timely delivery to the TYNDP a proposal is presented to adapt the timing for internal review and public consultation of final results. The Committee members expressed their concern on how the TYNDP timeline is already put under pressure and support to be pragmatic in how to finalise the scenarios. The question is raised to put effort in future TYNDP editions in presenting results of non-EU countries in the same approach as EU countries.

The Scenario Building project lead gave a proposal from the WG on how recent feedback from the input data consultation on generation can be accommodated. Over summer also new draft NECPs were published. The Committee acknowledged that not all recent new plans can continuously be included, and a clear cut-off needs to be made. The study teams are asked to consider whether the comments raised in the meeting (the only substantial requests for update) can be accommodated without jeopardising the TYNDP timeline itself.

The Committee took note of the proposed demand figure updates.

## DECISION

The SDC:

- takes note of the summary of the stakeholder feedbacks from the public consultation.
- approves the main principles for finalising the input datasets.
- acknowledges that further major input data updates jeopardise the timing of the rest of the overall TYNDP timeline.
- SDC approves running the second public consultation on draft scenario outputs in parallel to the TSO review period.

## 12. TYNDP 2024

### 12.1 Progress report

The TYNDP StG Convenor shared the overall progress, in particular on the opening of the TYNDP 2024 project submission window. The Committee asked for some clarification on parts of the CBA Implementation Guidelines which are presently under public consultation.

### 12.2. Status of RCC involvement in IoSN

The Secretariat informed on progress from the task initiated by the Committee last year about a methodology on how RCCs could be involved in the TYNDP IoSN work. The Committee endorsed guiding principles and gave further input via a dedicated survey. At this stage, it is not clear what is realistically feasible in this context, and the Committee agrees to put the task on hold. The Committee noted that the Electricity Directive's requirement for RCCs to be involved in grid development planning refers to the NDPs and not to the Pan-European TYNDP itself directly.

## DECISION

The SDC:

- decides to put the workstream of developing a further proposal for the involvement of RCCs in the TYNPP IoSN on hold until synergies with the ongoing CSA process implementation are clear.

### 12.3. DT CBA next Convenorship

The Chair thanked the DT CBA Convenor for his commitment, leadership and accomplishments over the past seven years in this role. The DT CBA Convenor expressed a warm thanks for the great collaboration. The value of the role is highlighted to the Committee members, to be taken into account when a call for nominations for new Convenor is circulated.

### 12.4. Endorsement of a new StG member

The SDC Chair presented the nomination from APG, who is already active in various SDC work areas, to join the TYNDP 2024 Steering Group. He reminded the SDC of an earlier decision that TSOs who have a StG member need to meet a minimum FTE contribution at working level and asks Steering Group members to review the contributions of their companies.

## DECISION

The SDC:

- approves the nomination of APG as member of the TYNDP2024 Steering Group.

## 12.5. ENTSO-E StG TF Interlinked Model membership

The Long-Term Planning Manager and the TYNDP Product Manger updated the Committee on developments of the Interlinked Model workstream and point to insufficient resourcing at Steering Group and working levels, despite the strategic relevance for ENTSO-E. SDC members call for potential synergies in having TST members joining the ILM at working level.

## DECISION

The SDC:

- takes note of the progress in the StG ILM and the interaction between the gas and electricity TYNDP 2024 and beyond.
- reinforces the need to have ENTSO-E involved in any assessment of electricity system aspects that would be developed for a public TYNDP report.

## 12.6. Call for TST sub-team Leader

The TYNDP Project Manager presented the structure of the TST, the main delivery body of studies in TYNDP, and informed the Committee about a vacant role to lead one of TST sub-teams. He also underlined the importance of the sub-teams' leaders for the efficient and effective functioning of the group.

## DECISION

The SDC:

- acknowledges the risk for the TYNDP 2024 process due to lacking TST commitments from TSOs.

**13. Offshore Network Development Plans 2024**

## 13.1 Progress report

The Convenor of the ONDP Central Group reported that simulations and post-processing activities are on track. The structure of the ONDP package is set. The timeline for SDC review/approval is set. Central and Regional Groups are now engaging with the European Commission and the High-Level Offshore Corridors to set up the dissemination of the ONDP24 approach and early draft results. The Convenor also reported on the collaboration with RGI on the environmental aspects of the ONDP.

## 13.2 Early results for 2040 and 2050 expansions

The Convenor of the ONDP Central Group presented the four-step approach again. Very initial results (order of magnitude, not yet quality checked) are shared for 2040 and 2050. Even though the dominant connection configuration will remain radial, the hybrid connections will be relevant for several transmission corridors, especially in the North Sea basin. The RGs are also developing an assessment of the potential equipment needs and costs related to the implementation of the offshore infrastructure connecting the MS targets. The

Committee asked clarifications on presentation of results including costs and offshore energy yields. The Chair congratulated the whole team for the progress.

## 14. StG Connection Network Codes

### 14.1. ACER public consultation of the amendments of NC RfG and NC DC

The StG CNC Convenor informed on the intensive work last two months on ACER's public consultation on CNC amendments. Discussions were held with stakeholders specifically with the EU DSO Entity, EUTurbines, and WindEurope. ACER will submit to EC the NC RfG and NC DC amendments proposal by the end of the year.

StG CNC Convenor asked for SDC guidance on how to formulate a proposal for grid-forming convertor requirements. The main principles were already endorsed by SDC earlier, and the Committee asks the StG to work on a specific legal text for submission to ACER based on these principles.

### 14.2. Study on frequency defence plan and recommendation of NC RfG and NC DC exhaustive parameters

The StG CNC Convenor informed on the intention to ask SOC's RGCE SPD to apply their knowledge and models for frequency stability analysis to guide proposals for frequency stability requirements. The study should be ready by end of the year.

## DECISION

The SDC:

- approves the initiation of a stability study to provide exhaustive parameters for the new frequency stability requirements of NC RfG and NC DC in coordination with frequency defence plans.

### 14.3. Reactivation of platform Active Library Tool

The StG CNC Convenor informed that the Active Library Tool was used in the past as monitoring platform during national implementations. It is no longer used. It will be decommissioned, and all data archived.

## 15. Project Flexibility Needs Assessment

### 15.1. Progress report

The project lead from Terna shared an overview of how the project is progressing. Most important now is for TSO support to join the team. The Chair invited to have further updates in next meeting.

## 16. Project Inertia phase II

### 16.1. Status update and cross committee approval of first interim report

The TF PS Convenor presented on progress. Report conclusions will be presented next GC ESC.



## Thursday, 21 September 2023

### 1. Review attendance, quorum

The Chair expressed a warm thanks to SEPS for the excellent social event the evening before.

#### 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. WG Data & Models

#### 8.1. Dashboard

The System Modelling manager gave an update on nominations for the various StG D&M groups. A lot of people are involved. Commitment and time availability needs to be given by SDC members to their data correspondents, as was agreed in recent SDC meetings. The Committee noted that especially on DFT some application/functionality issues need to be addressed in coming weeks to ensure a stable tool is available for the ERAA training weeks.

#### DECISION

The SDC:

- takes note of the StG Data & Models Dashboard updates.

#### 2.2. ENTSO-E Grid map: first renewed edition and next steps

The SDC Chair and System Modelling manager underlined the great collective accomplishment of delivering updated grid maps over summer. Some application and process issues are noted and will be enhanced in future. The Committee is reminded that their Grid Map Correspondents can and ideally should update their map in the tool on regular basis, and do not need to wait until a process is triggered for new prints. Some Committee members asked to give clarification on which generator level/detail/names should be included, which is ideally consistent across countries.

#### 2.3. Cloud-based data hosting: ENTSO-E policies and ICTC guidance

The Chair and System Modelling manager reported that ICTC does not yet have an association wide strategy on hosting of applications. In the meantime, the SDC proceeds for the PEMMDB App based on the agreed plan while aligning with legal and IT experts on applicable policies. While the PEMMDB App is set in production mode, the ICTC StG Security will do an ad-hoc review of the hosting solution and give possible recommendations. SDC will be informed if relevant actions are needed.

#### 2.4. ERAA 2024 Data Collection Timeline

The timeline for next ERAA 2024 data collection is presented. The Committee asked for clarification on the timing for training and data delivery. The System Modelling manager clarified that three weeks are given for each data collection with a sequenced schedule of available Secretariat hands-on support. The message is

reminded again that the objective is TSOs apply the DFT themselves, and it cannot be done centrally for everyone. The SDC will be informed on progress in the next meeting.

## DECISION

The SDC:

- approves the ERAA 2024 Data Collection Timeline

### 2.5. PECDv4 Updates

The Secretariat reminded that the PECDv4 is close to be finalized after an internal consultation by the SDC. There is still a need for TSO experts on hydro to support review of the proposed methodology before it is sent for SDC approval. One SDC member acknowledged to look into this. An SDC written voting process is planned in October on PECDv4 methodology, to allow for ERAA StG to take a decision by 10 November 2023 on which version of PECD to use in next ERAA. This clarity is needed for use in the DFT. Fall-back in absence of a timely PECDv4 approval is to continue with the present PECD.

### 2.6. Grid Model requests from non-EU entities

The Committee endorsed the decision without further discussion.

## DECISION

The SDC:

- approves the disclosure of the requested grid model dataset (STUM) to the requesting party.

## 3. ERAA 2023

### 3.1. Initial results and next steps

The StG Convenor gave main updates from recent EVA and ED runs. Some complications were experienced in recent weeks on the model convergence and robustness. A more practical arrangement needs to be set up with the external service provider of the market modelling tool to allow for full model sharing or access for debugging. Committee members discussed options and acknowledged the need for a pragmatic and acceptable solution. The Chair also reminded that it is essential to have an ERAA delivered in time to ACER with robust results that TSOs can trust and defend. The StG Convenor reported a proposal is made for final runs on EVA and ED for specific target years to maximise quality and robustness. The StG still has to look into priorities and impact on time. The Committee is asked for guidance. The overall support is to give sufficient time and mandate to the StG to improve what can be done if it gives higher quality results, even if it comes at the cost of shorter review/approval times and less extensive reports. The StG Convenor expressed thanks to all involved TSO and Secretariat modelling experts.

## 4. Future ERAA purpose

### 4.1. Update on discussions with EC and ACER

The Convenor of the StG ERAA 2023 presented the recommendation of the StG for keeping future ERAA editions fit for purpose. She highlighted the importance of streamlining the number of assessed target years and scenarios, as well as the need to improve further the Economic Viability Assessment robustness, building

on the experience of the three past ERAA editions. Two EVA approaches are explored of either an iterative approach or more CYs in stochastic EVA with flow-based domains. This also implies that multiple tools are needed, which in any case (as is also the experience with TYNDP) would improve quality control. A call for resources will be made to assess commitment per tool cluster before the Committee takes a final decision on tool/resource strategy in the PID. Several TSOs already indicated they are willing to support a second modelling tool cluster in ERAA2024.

## DECISION

The SDC:

- takes note of the points of focus for future methodology amendments for keeping ERAA fit-for-purpose.

## 5. WG Seasonal Outlook

### 5.1. Progress report of Winter Outlook

The StG Seasonal Outlook Convenor informed on the timeline for next Winter Outlook preparations, including planned engagements with ECG. He noted the work is delayed due to late delivery of the full data package.

## DECISION

The SDC:

- takes note of the Winter Outlook timeline and encourages a proactive communication to national and European authorities on early insights.

### 5.2. Risk preparedness - Ad hoc support of Seasonal Outlook on Regional Crisis Scenarios

The StG Seasonal Outlook Convenor informed on the interactions with EC and ACER regarding the possible future use of an Outlook model for regional crisis scenario assessments. The work is coordinated via SOC, but the assessment itself would take additional effort from the small team of Seasonal Outlook experts.

## 6. RGs activities (beyond TYNDP 2024)

### 6.1. Main progress and update

All RG Convenors reported on their regional activities.

The RG CCE Convenor focused on the process of permanent synchronisation of the UA/MD system with Continental Europe. The Articles of Association state such decision is jointly taken by the relevant SOC and SDC RGs. RG CCE reviewed the process and concluded there are no additional checks needed beyond what is already reviewed in SOC RGCE. In alignment with the ENTSO-E legal team, the RG CCE delegated its own decision on this topic therefore to RGCE to simplify the process.

## 7. National updates

### 7.1 TenneT TSO BV - Target Grid

The member from TenneT TSO BV gave an overview of the work on their Target Grid which was recently published.

## 8. Any Other Business

No other topics are raised.

## 9. Approval of the Decisions

All decisions as shown on screen during the meeting are approved.