

# 83<sup>rd</sup> System Development Committee Meeting

Date: 9 September 2021 Time: 09.00 – 13.30h Place: Web-conference:

# **Participants**

#### Chairman

Amprion	Germany
·p	•••••

#### **Members**

1.	50Hertz Transmission	Germany
2.	Amprion	Germany
3.	APG	Austria
4.	AS Augstsprieguma tïkls	Latvia
5.	Creos Luxembourg	Luxembourg
6.	Elering	Estonia
7.	Eles	Slovenia
8.	Elia System Operator	Belgium
9.	Energinet	Denmark
10.	Fingrid	Finland
11.	HOPS	Croatia
12.	MEPSO	Republic of North Macedonia
13.	OST-Operatori i Sistemit te Transmetimit	Albania
14.	RTE	France
15.	Seps	Slovakia
16.	Statnett	Norway
17.	TenneT TSO BV	Netherlands
18.	TransnetBW	Germany

#### Substitutes

19.	EMS	Serbia
20.	Litgrid	Lithuania
21.	Mavir	Hungary
22.	PSE	Poland
23.	REE	Spain
24.	REN	Portugal
25.	Svenska Kraftnät	Sweden
26.	Swissgrid	Switzerland
27.	TenneT TSO GmbH	Germany
28.	Terna	Italy
29.	Transelectrica	Romania
30.	VUEN	Austria



#### Conveners RGs

1.	RG North Sea	France
2.	RG Baltic Sea	Germany
3.	RG Continental South East	Serbia
4.	RG Continental South West, excused	France
5.	RG Continental Central South	Italy
6.	RG Continental Central East, excused	Czech Republic

#### Conveners WGs and SGs

1.	WG Scenario Building	France
2.	WG System Design Strategy	Netherlands
3.	Offshore Development Core Group (ODCG)	Denmark
4.	DT CBA	Germany
5.	DT Planning Standards	Portugal

#### **Excused**

1.	Ceps	Czech Republic
2.	CGES	Montenegro
3.	Eirgrid	Ireland
4.	ESO-EAD	Bulgaria
5.	IPTO	Greece
6.	Landsnet	Iceland
7.	National Grid ESO	United Kingdom
8.	NOS BiH	Bosnia&Herzegovina
9.	Scottish Hydro Electric Transmission	United Kingdom
10.	SONI	United Kingdom
11.	Transmission System Operator-Cyprus	Cyprus

#### **Secretariat**

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

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

The new SDC Chair welcomes all participants to the 83<sup>rd</sup> SDC meeting. The SDC Chair confirms that participants can formally cast their vote via teleconference on decisions proposed during the meeting.

The SDC Chair welcomes three new members: one member from Seps and two substitutes from Mavir and Svenska Kraftnät.

The agenda is approved without further changes.

The SDC Chair informs the Committee that all further meetings this year will remain virtual. For next year, the approach and concrete planning will be discussed in next SDC meeting, including how the SDC Strategy Seminar will be arranged.



#### Take note

Since 30/41 of the TSOs represented in the System Development Committee are attending, the Chairman states that the Committee meeting reaches the necessary quorum of half its members

#### 2. Election of interim SDC Vice-Chairperson

Gerald Kaendler was elected on 31 March 2021 as the new SDC Chair by the Assembly. Therefore, the position of SDC Vice-Chair became vacant since 1 July and the interim SDC Vice-Chair needed to be appointed for the remaining term of office, i.e. from 1 July 2021 until 23 January 2022.

After the call for candidates issued on 2 July 2021 by the Secretariat for the position of interim SDC Vice-Chair, RTE nominated Dimitrios Chaniotis, SDC member and SDC Programme Manager.

The SDC Chair asks all Committee members to cast their votes. Dimitrios Chaniotis is unanimously elected as interim Vice-Chair and thanks the Committee for its confidence and support.

Dimitrios will assume the functions of the resigning Vice-Chair until the expiry of the term of office of the outgoing Vice-Chair, i.e. 10 September 2021 until 23 January 2022, in accordance with Article 18(13) of the AoA. The interim SDC Vice-Chair will also assume the role of SDC Programme Manager. A new call to SDC for a next term will be prepared in due time.

#### Decision

Decision			
Approval	Purpose/notes		
The SDC unanimously elects Dimitrios Chaniotis as the SDC Vice-Chair per interim starting from 10 September 2021 until 23 January 2022, in accordance with Art. 18(13) of the ENTSO-E AoA.  The SDC agrees that the new SDC Vice-Chair	➤ n/a		
	note		
The SDC takes note that the elected SDC Acting	Vice-Chair will assume the functions of the resigning f the outgoing Vice-Chair, i.e. until 23 January 2022.		
	The SDC unanimously elects Dimitrios Chaniotis as the SDC Vice-Chair per interim starting from 10 September 2021 until 23 January 2022, in accordance with Art. 18(13) of the ENTSO-E AoA.  The SDC agrees that the new SDC Vice-Chair continues the role of SDC Programme Manager.  Take  The SDC takes note that the elected SDC Acting Vice-Chair until the expiry of the term of office or		

#### 3. SDC Planning Programme and Project Dashboard 2021

The Programme manager informs the Committee on progress of the main workstreams. Critical items remain mainly the TYNDP scenario work, the staffing of TYNDP study teams and the lack of convener for WG D&M.

The Committee will discuss all items in coming agenda topics.

The Head of Section emphasizes that ERAA 2021 is still debated with ACER who expressed concerns, but it is not considered at risk in terms of quality, timely delivery, and involved TSO resources. Good progress was confirmed in an SDC mini-retreat on the draft ERAA results on 8 September 2021.



#### 4. Resource planning for TYNDP

4.1. Strategic, legal and financial perspectives for 2022 annual budget

The Head of Section informs the Committee on next steps taken since the June meeting regarding alternative resourcing options for TYNDP. These have been discussed at Board and Assembly level. A specific budget item is proposed for 2022 to cover specific key TYNDP tasks. These will focus on market studies in specific tasks which are to be further defined. Attention will be given to not create confusion with continuing voluntary expert contributions, nor is it the goal to restrict these remunerated services to usage of a specific market modelling tool, unless it jeopardizes timely delivery and quality.

### 5. SDC Strategy Seminar 2021 - 2<sup>nd</sup> part

5.1. Date and strategic orientation topics.

The SDC should be ready to adapt its action strategy and prepare different plans based on the possible developments of the TEN-E revision, which includes adapting the scope of long-term planning deliverables and the governance of Scenarios and TYNDP as required by the regulation and expected by stakeholders. The next Strategy Seminar should be focused on the assessment of the potential outcomes and aim at defining robust action plans so that when the new regulation will enter into force, ENTSO-E will be ready to deliver.

After discussion and opinions brought forward by various members, the Committee agrees to focus the next SDC Strategy Seminar on how to deliver the anticipated mandates from the new TEN-E regulation. Where relevant this should be seen in broader directions set by the Fit for 55 Package. The timing of the Seminar is set for January 2022 in a hybrid format. WG SDS takes initiative to organise this further.

#### 6. European policy updates: Fit for 55 Package

The EC released the Fit for 55 Package last July2021. The Package includes 13 proposals reviewing existing legislation on RES integration, energy efficiency, energy taxation, infrastructure charging, as well as new proposals on a carbon-border adjustment mechanism. A number of provisions in those proposals are expected to have impacts for TSOs due to the higher RES integration and energy efficiency targets, electrification rates, "energy efficiency first principle", infrastructure charging targets, etc.

ENTSO-E's Policy & Communication Expert Group (PCG) is assessing the legislative proposals in coordination with relevant Working Groups and Committees and will coordinate advocacy on the points of relevance for ENTSO-E and the TSOs. Members are invited to attend an internal ENTSO-E webinar late September on this topic.

Some members raise questions on the implications of the "avoidable network losses" in the draft Energy Efficiency Directive update. TSOs may i.e. implement load flow control devices to allow for more renewable plants to be connected sooner. These devices may create higher losses, but are efficient in a broader sense of enabling the energy transition.

### 7. Resource Adequacy

7.1. ERAA 2021 provisional key outcomes (incl. feedback from mini-retreat)

In the context of the coupling of European energy markets, the integration of renewable energy sources and further efforts to decarbonize energy systems, the European Resource Adequacy Assessment (ERAA) is key to provide correct system views to policy makers. It will also be the basis for strategic decisions such as



possible introductions of capacity mechanism (CM). The ERAA process is outlined in the Electricity Market Regulation (EU) 943/2019. The ERAA methodology, as approved by ACER on 2 October 2021, provides for a stepwise implementation as of ERAA 2021 which will be the first edition of this new product.

The ERAA 2021 delivers economic viability assessments (EVA) for scenarios with and without CM. It assessed as well flow-based market coupling (FBMC) as a separate sensitivity. ERAA 2021 also considers climate change using a transitionary solution while developing a more comprehensive updated Pan-European Climate Database for ERAA 2023.

The Committee discusses the storyline of the ERAA2021 and provisional results of the four suggested central scenarios. The Committee confirms to consider all suggested scenarios as central reference scenarios and considers that the combined package meets legal obligations as per the ACER methodology and informs policy makers in the most complete way of future trends. The Committee thanks the ERAA project team members for the good work and insightful results delivered.

The provisional results will also be shared with the Electricity Coordination Group on 15 September 2021.

#### Decision

2000011		
Approval	Purpose/notes	
➤ The SDC endorses the ERAA 2021 scenarios for ➤ n/a integration in the report.		
➤ The SDC approves the sharing of provisional ERAA2021 outcomes to the ECG on 15 September 2021.		

#### 7.2 Advocacy efforts at European and national level

Members are asked to provide appropriate comments on national assumptions in the ERAA for specific market conditions and out-of-market measures to complement the central scenarios. An internal survey has been launched for this purpose. These national views are key to deliver a robust ERAA and meet ACER's expectations.

#### **Decision**

	Approval	Purpose/notes
>	The SDC urges members for clear communication contributions in the ERAA report and solid advocacy on the achievements of the ERAA towards stakeholders.	≻ n/a

#### 7.3 ERAA implementation roadmap towards 2022

End of 2020, SDC approved a 5-year ERAA implementation roadmap, which was then published on ENTSO-E's website. This roadmap provides high-level charts showing conceptual progress expected each year for key aspects such Economic Viability Assessment, FBMC methods, climatic data and others.

The ERAA Steering Group reviewed ambition and feasibility of the roadmap. The target remains to have a full methodology in ERAA2023. The Steering Group decided to accelerate the implementation to extended geographic scope and target years for ERAA2024, which is one year earlier compared to the initial roadmap. This needs a ramp-up of efforts in data management, computational efforts, quality checks and reviews to



reach the multiple scenarios and years. This needs to be understood is extremely challenging. The roadmap will be updated for publication in November 2021, together with the ERAA 2021 report. This approach complies with the ACER methodology which asks for full application by end of 2023, which is during the ERAA2024 development process.

#### 8. Seasonal Outlook

#### 8.1 Approval of Terms of Reference

The Risk Preparedness Regulation (EU) 2019/941 encompasses the seasonal to day-ahead adequacy methodology. This methodology was drafted by ENTSO-E and approved by ACER in March 2020. It builds on a state-of-the-art probabilistic approach. The methodology implementation for Seasonal Outlook was reflected in a dedicated Project Identification Document (PID). As the implementation is now fully operational for recurring outlooks in a structured process, the responsibilities will be picked up by an operational Working Group. The Committee agrees on the way forward and asks for interested members to participate.

#### **Decision**

	Approval		Purpose/notes
>	The SDC approves the Terms of Reference (ToR) of the new WG Seasonal Outlook (WG SO).	>	n/a

#### 9. WG Scenario Building

### 9.1. Progress Report

A critical phase for the scenario modelling continues due to a gap between project ambition and available resources in the TYNDP Study Team. The Committee is informed that this is not a sustainable situation for future TYNDPs. To ensure scenario updates can be modelled during and after consultation, TSOs are again urged to see if market modelling experts can be made available in coming months. Some Committee members ask more questions on what is needed and can be done. Interested TSOs are asked to contact the WG Scenario Building Convenor and Secretariat for further questions.

Working Group and Steering Group approvals of the draft results and report are planned in the coming week. An SDC webinar will be held on 16 September 2021 to present detailed scenario results. The SDC (and ENTSOG Board) approval through written procedure is scheduled for the last week of September 2021, after which it can be published for consultation. A firm timeline depends on review of the new modelling results in coming days and will be communicated when available. SDC members are informed to at least prepare for the review/approval process in September.

9.2. Draft TYNDP 2022 Scenarios Report and draft TYNDP 2022 Scenarios Building Guideline (without results)

The draft Scenario report covers Distributed Energy and Global Ambition scenarios for 2030, 2040 and 2050 as well as National Trends 2025 (for ENTSOG) and 2030. National Trends 2040 is based on joint work with the IoSN study of TYNDP and will be included in the final Scenario report to be published early 2022. The draft Scenario report shows a good alignment with EC's Impact Assessment on key indicators. Direct comparison with previous TYNDP scenarios deserves caution due to change of scope (UK, shipping, ambient heat), nevertheless the overall imported energy is clearly lower. The higher penetration of heat pumps and



electric vehicles as laid out in the Final Storyline report is confirmed. This does contribute to a higher level of electricity demand.

Some members raise questions on the high volumes of hydrogen in specific end use sectors. TSOs are invited to raise such comments – if any – in the review process so that it may be addressed in later scenario updates post consultation.

#### 10. TYNDP 2020

10.1. Approval of final version after ACER opinion

Following the publication of ACER's opinion No 03/2021 on the methodological aspects of the draft TYNDP 2020 and the opinion No 04/2021 on the electricity projects in the draft TYNDP 2020, ENTSO-E has implemented specific factual corrections to the TYNDP 2020 deliverables. After approval, these will be updated on the TYNDP website.

#### **Decision**

	Approval		Purpose/notes
>	The SDC approves the final TYNDP 2020 package	≻	n/a
	for publication.		

#### 11. TYNDP 2022

11.1. TYNDP 2022 staffing and progress in various teams

The development of TYNDP 2022 is progressing but there is still a high risk of not meeting the target release date of September 2022 due to lack of resources, specifically for market modellers, the editor team and for side studies.

A new call for members will be launched with a better overview of specific tasks, contributions, strategic value and expected time window of involvement.

The Committee is informed that the Steering Group as this stage needs to review the PID. Changes may be suggested to the full TYNDP scope, even if this is not desirable.

#### 11.2. Collaboration with RCCs on IoSN

The Electricity Market Regulation specifies that RCCs need to support TSOs in the development of their Ten-Year Network Development Plan (TYNDP) and in particular in the performance of the Investigation of the System Needs (IoSN). The details about the collaboration between ENTSO-E and the RCCs shall be included in the overall RCC proposal to be submitted by ENTSO-E in April 2022, in compliance with the requirements of the CEP Regulation.

A list of tasks has been suggested after discussion with RSCs. This frames the ENTSO-E high level proposal for collaboration. The drafting activities are planned to start late September 2021. The draft proposal shall be sent for review to the SDC in November 2021 and submitted for SDC approval in December 2021. The proposal will be put out for public consultation for 4 weeks in January 2022. February and March 2022 will be dedicated to the final consolidation of the proposal. Final version of the proposal will be submitted to ACER by 20 April 2022 as part of the overall ENTSO-E RCC proposal.



#### **Decision**

Approval	Purpose/notes
The SDC approves the preliminary list of tasks to be performed by the RCCs in their collaboration in future TYNDP IoSN studies and asks a small drafting team to develop these concepts further.	

#### 11.3. Status of CBA Implementation Guidance

Over the summer, the DT CBA worked on various improvements of the TYNDP 2022 Implementation Guidelines, including the interlinked model, PLIs, assessment of the commissioning years methodology and Hybrid Projects. The first draft of the updated Implementation Guidelines is planned to be available late September and approved by SDC in October 2021. The approved version will be presented in a public workshop and put out for public consultation.

#### 12. WG SDS

12.1. Terms of Reference Optimal Energy System Planning

The Terms of Reference (ToR) sequence the work in two steps, synchronized with the TYNDP22 IoSN work:

- 1) development of a methodology to expand the IoSN (September 2021 January 2022)
- 2) test run of the methodology on a small-scale model (March 2022 June 2022)

The methodology will be developed by experts from relevant SDC teams (TST and WGSB). For the actual testing of the methodology, external consultant support to run the simulation test runs on a limited example-region (composed by zones considered in the IoSN) may be the only option to not stress the ongoing CBA phase at that time. The finalization of the methodology for the Optimal Energy System Planning should be synchronized with the publication of IoSN 2022. This would make a bridge in public statements on the envisaged next step methodology for TYNDP 2024.

Reporting is done to the TYNDP Steering Group, who will establish SPOCS to ODCG and TF Sector Coupling (both under WG SDS). In case the same experts are called upon for both the Scenario Building work and the Optimal Energy System Planning, then in case of critical situations priority would be given to the Scenario Building work.

It is noted that this task covers complex optimisations with many interdependencies. Therefore, the suggested approach in which a clear methodology is prepared with experts in a first phase is crucial. Only then can actual simulations of test cases and actual systems start.

Two TSOs abstain from the decision.

#### Decision

	Approval	Purpose/notes
,	The SDC approves the Terms of Reference	> n/a
	(ToR) for the activity of the Optimal Energy	
	System Planning.	



#### 12.2. Project Inertia - Progress of report development and communication strategy

Based on the TYNDP2018 long-term scenarios and market studies, the report investigates a specific set of possible combinations of system split cases, defined *global severe cases* (where both islands of a split case showed absolute RoCoF values higher than 1 Hz/s), between market nodes in the synchronous area of Continental Europe. The analysis did not cover the events and the conditions leading to the system split cases, since it assumes that the system split happened and focuses instead on assessing how the parameters relevant for frequency stability would vary in all the possible combinations of split islands and in relation with the initial conditions.

The innovative analysis developed by the project team and its results, lay the technical basis to take forward the discussion regarding the risks and manageability of system splits in Continental Europe and whether a minimum required inertia needs to be established or alternative mitigation actions should be taken.

A publication of this analysis may take various dimensions. The Committee suggests to first go public with a clear factual technical report. To ensure it reaches a broad audience, a summary is to be added for the non-technical stakeholders. In future, other ENTSO-E deliverables (mandated deliverables, further studies or position papers) may build on this analysis.

One TSO abstains from the decision.

#### **Decision**

	Approval		Purpose/notes
>	The SDC identifies a publication as technical	> n/	/a
	report as the most appropriate communication		
	strategy, together with a high-level information		
	for non-technical readers.		

#### 13. Call for Conveners and SDC representatives

13.1 WG Asset & Implementation Management

After the resignation of the Convenor of WG AIM, the Secretariat issued a call on 28 July 2021 for candidates to take over the remaining mandate of the outgoing Convenor until 15 September 2022. One nomination was received just before the Committee meeting. Other members still have the option to nominate a candidate until 30 September 2021. The application(s) will be circulated soon, with formal election in the October SDC meeting.

#### **Decision**

Take note
> The SDC takes note that one application has been received.

#### 13.2. StG Connection Network Codes

The StG Connection Network Codes Convenor will not continue for a second mandate and therefore a call for new Convenor will be launched soon after the SDC meeting. The new expert is expected to assume the Convenor tasks from beginning of 2022. In case of questions on the role description and expected work in coming months and years, interested members are advised to contact the Secretariat.



#### **Decision**

	Actions requested	Responsible body/Date of expected report
>	The SDC encourages its members to send applications for StG CNC Convenor by 22 October 2021.	
	Take	note
>	The SDC takes note of the importance of such p discussions and a probable start of the official ar	position especially in light of the current amendment mendment process by ACER in 2022.

The SDC warmly thanks Ralph Pfeiffer for his successful profound contribution to the CNC process since the very beginning, and wishes him good luck with his new work responsibilities and possible future engagement within ENTSO-E.

#### 13.3. WG Data & Models

Last year, the Committee appointed the Secretariat's team manager on Economic Studies as interim convener of the WG Data & Models for a one-year period. In the meantime, no other candidates stepped forward to take this role. The Committee is invited to extend the interim convener role, and a last call for nominees will be launched. In case this remains unsuccessful, the scope and responsibilities of this WG will be reviewed and reassigned. The Secretariat will look into options. The Committee is reminded on the critical nature of the WG D&M for all other SDC analyses. Any new set-up due to lack of WG members/convener – even if the Secretariat is assigned a permanent coordination role – will require more tasks and accountability for data providers and project teams.

### Decision

	Approval	Purpose/notes			
\[ \text{\tin}\text{\tetx{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\text{\texi}\text{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\ti}\tint{\text{\text{\texit{\text{\texi}\tiint{\text{\texit{\text{\ti}\tinttit{\texi}\tint{\text{\ti}\text{\texit{\text{\tet	The SDC encourages its members to send applications for the WG Data & Models (WG D&M) Convenor by 30 September 2021.  The SDC reconfirms the present interim Convenor to continue its role until further notice on this topic.	> SDC, 30 September 2021			
	Take	note			
>	The SDC takes note of the work covered by W	G D&M and recognizes the need for the WG to be			
	maintained with a designated Convenor.				

### 13.4 EC Offshore working group: Call for ENTSO-E representative

The EC has recently launched an open call for expression of interest for organisations to become members of a new WG on Offshore Renewable Energies and deadline for applications by organisations is 10 September 2021.

So far, ENTSO-E has taken clear positions in the public debate on offshore energy and continues work in this field in TYNDP related studies. Also, it is well noted the anticipated TEN-E revisions bring new legal mandates in this area and it is a great value that ENTSO-E takes in this new EC group.

Participation to the group is expected until end of 2022. The first meeting is scheduled on 13 October 2021.



The Committee asks the Head of Section System Development to represent ENTSO-E in this working group, with the support and internal coordinating role of the OCDG group. This nomination will be submitted. Several members indicate their TSOs will also nominate a person to represent their individual organisation.

#### **Decision**

	Approval			Purpose/notes	
>	The SDC approves the nomination of the SD	۶	n/a		
	Head of Section as ENTSO-E representative to				
	apply for membership to the EC working group				
	on offshore renewable energies				

### 13.5 Representative in preparatory work for new Committee on digitalisation

The preparation of a new Committee on digital-related matters was approved at the last Board and Assembly meetings in June. This would also partly replace the existing Digital committee (Dc) which up to now reported directly to the Board.

For SDC, the work on Data & Models would be the main interaction with the new Committee. This includes future of NMD, Plexos server capabilities, CGMES, and others. For this reason, it is suggested that the WG D&M interim Convenor actively participates in the preparatory work to scope the activities of the new Committee which would be active by Summer 2022.

For the existing Digital committee meetings, the SDC Chair is always invited (as is the case with the Resource committee or TSO-DSO Steering Group who also report to the Board). As noted, this committee will eventually transition to a new Committee with its own governance rules in line with the AoA and IR of ENTSO-E.

#### **Decision**

Approval	Purpose/notes
The SDC asks the interim Convenor of WG D&M	n/a
to represent SDC in the preparatory work for the new ENTSO-E committee on digitalization	
topics.	

#### 13.6 SOC StG Regional Coordination representative

A new Steering Group on Regional Coordination will be established by SOC to facilitate, coordinate and develop regional coordination, most notably amongst Regional Security Coordinators (RSCs), later Regional Coordination Centres (RCCs), and TSOs. The main responsibilities are to oversee all RCC tasks listed in Article 37(1) of Regulation (EU) 2019/943.

The Terms of Reference (ToR) are still under review in SOC. The group is foreseen to meet about five times per year. A call for SDC representative will be launched soon.



## 14. Decision Mode A (discussion at request only)

14.1. Data request for sharing the ENTSO-E market modelling data with market model developer company

Detailed information was provided in the Session File. Decisions approved by SDC.

### Decision

	Approval			Purpose/notes
>	The SDC approves the disclosure of the	$\triangleright$	n/a	
	PEMMDB 2.1 data package, target year 2025			
	collected in 2019 and utilized in TYNDP 2020,			
	to the market modelling tool developer			
	working with a member TSO, under an NDA			
	managed by that TSO.			
>	The SDC approves the disclosure of the			
	PEMMDB 2.3 data package, target year 2025			
	collected in 2021 and currently being utilized			
	in TYNDP 2022 to the market modelling tool			
	developer working with a member TSO,			
	under an NDA managed by that TSO.			

## 15. Topics for next mini-retreats in October 2021

#### **Decision**

	Approval			Purpose/notes
>	The SDC approves the following topics in the	≻	n/a	
	SDC mini-retreat session on 6 October 2021:			
	• European long-term grid models beyond			
	2030			

## 16. Any other business