

50th Research, Development and Innovation Committee Meeting

Date: 13 February 2020

Time: 08.30.00 – 15.00 h (RDIC Meeting)

Place: ENTSO-E premises, avenue de Cortenbergh 100, 1000 Brussels – Ground Floor

FINAL MINUTES

Chairman

	Statnett	Norway	
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Vice Chairman

	Eles	Slovenia	
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Members

1.	Ceps	Czech Republic	
2.	Statnett	Norway	
3.	50Hertz Transmission	Germany	
4.	Svenska Kraftnät	Sweden	
5.	Transelectrica	Romania	
6.	PSE	Poland	
7.	Elering	Estonia	
8.	HOPS	Croatian	
9.	Fingrid	Finland	
10.	Swissgrid	Switzerland	
11.	REE	Spain	
12.	REN	Portugal	
13.	Eles	Slovenia	
14.	Amprion	Germany	
15.	TransnetBW	Germany	

Substitutes

1.	Elia System Operator	Belgium	
2.	IPTO	Greece	
3.	Terna	Italy	
4.	OST	Albania	
5.	RTE	France	
6.	National Grid	United Kingdom	

7.	TenneT TSO GmbH	Germany	
8.	TenneT TSO BV	Netherlands	
9.	Litgrid	Lithuania	

Conveners Working Groups (WGs)

1.	WG Research Development and Innovation Planning (WG RDIP)		
2.	WG 1 Power System Modernisation		
3.	WG 2 Security and System Stability		
4.	WG 3 Power System Flexibility		
5.	WG 4 Future of energy systems		

Special Invitee

	ENTSO-E Head of System Development Section	-	
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Secretariat

	ENTSO-E	-	
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BLOCK 1: RDIC STRATEGICAL TOPICS

TOP 1: Attendance, quorum, approval of draft agenda, draft Decisions of 04-12-2019 and Dashboard

The Chair opened the meeting, welcomed and introduced new members and Committee approved the decisions of the previous meeting. The ENTSO-E Secretariat gave status of RDIC Dashboard. The timeline of ENTSO-E Research, Development & Innovation (RDI) Roadmap and Implementation plan publication was discussed. RDIC Budget were reviewed and discussed.

Decisions:

- 24 out of 33 TSOs represented in the Research, Development and Innovation Committee attended. The RDIC is quorate.
- The RDIC welcomes replacing members from Litgrid and TransnetBW.
- The RDIC welcomes the Head of ENTSO-E Head of System Development Section, to present ENTSOE position paper on Sector Integration and Sector Coupling.
- The agenda is approved.
- The decisions of the RDIC meeting on 4 December 2019 in Brussels are approved.
- The RDIC takes note of the RDIC Dashboard activities and decides to postpone the development of R&I Implementation Plan after issuing the RDI Roadmap 2020-2030.
- The RDIC takes note of the available RDIC budget for 2020 and the state of play of programmed activities and requests the Working Groups to plan the activities and allocate budget until the next RDIC meeting in April.

TOP 2 & 3: Breakout sessions and conclusions

The Chair opened the Breakout Session and introduced the finalized version of the RDI strategy paper on key RDI needs and priority areas from Cross committee/RDIC Strategic Workshops. The main points were highlighted, comments were collected and was noted that it is expected to include topics on asset management, cybersecurity and modelling tools in future development of paper.

Brainstorming results of Breakout Session were presented and shortly discussed. The resources for RDI Roadmap 2020-2030 development and the need to appoint the ownership of RDI flagships projects were discussed. The conclusions and next steps were summarized.

Decisions:

- The RDIC takes note of the ENTSO-E Strategy Active 2020+ and the implications for the Committee.
- The RDIC takes note of the RDI Strategy Paper and the Chair invites comments from the Committee members.
- The RDIC members comment on EU flagship denomination, requests the mentioning of cyber security, inclusion of asset management in the flagship cluster related to market.
- The RDIC approves the RDI Strategy Paper by requesting the inclusion of the elements commented and requests to be presented to the Board meeting in March 2020 for feedback.
- The RDIC requests an alignment between RDI Strategy Paper and the ENTSO-E RDI Roadmap 2020- 2030.
- The RDIC welcomes the outcome of 6 breakout sessions covering the 6 European flagships clusters and identified RDI topics and their descriptions in each of the Flagship area.
- The RDIC request that the table hosts of the breakout sessions (WG convenors) to provide support to the Working Group RDIP on finetuning the topics and their description.
- The RDIC requests in the next steps the identification of TSOs committed to European flagship clusters and the level of commitment of TSOs. The commitment will influence the priorities, and success of European Flagship clusters.
- The RDIC requests that all the Working Group activities are aligning with the RDI priorities and European Flagship clusters.

TOP 4: ENTSO-E Position paper on “Sector Integration and Sector Coupling”

Head of System Development Section at ENTSO-E presented the ENTSO-E Position paper on “Sector Integration and Sector Coupling”. The electrification of transport sector and possible scenarios were discussed underlining the upcoming challenges for the TSOs. The need for cooperation of RDIC and SDC were highlighted and discussed.

Decisions:

- The RDIC takes note of the work carried out by the SDC Task Force “Sector Coupling” on the position paper Sector Coupling and the identification of un-certainty elements including for electrification rates and speed of uptake.
- The RDIC requests the RDIC WG4 to follow-up on the activity of the SDC Task Force “Sector Coupling” and provide assumptions of scenarios for other sectors as cross committee work

BLOCK 2: THEMATIC WORKING GROUPS

TOP 5: WG2 Security and system operation of tomorrow

WG2 Convener presented the progress on the HVDC interface and CGMES projects and planned next steps. In addition to this topic, the main highlights of the EC workshop “Horizon 2050 power system and the role of HVDC technologies in a highly decentralised RES generation” which took place in Brussels on 4 February 2020 were presented.

The ENTSO-E Internal Workshop on Outcome of Research Projects and Ongoing Activities on Grid Forming Control, organized by RDIC WG2, which will take place in Brussels on 27 February 2020 was announced. This event will support the development of an ENTSO-E position paper with the aim to collect common TSOs position regarding grid forming control.

In addition, the WG2 Convener suggested to extend the WG2 sub-group on interoperability workstream with a member of CIGRE B4.85: Open Source opportunities and needs for HVDC control models and presented the SDC invitation to join the StG CNC Quality Control Board. WG2 volunteered to be appointed to make a nomination on behalf of the RDIC.

Decisions:

- The RDIC takes note of the new project initiated by WG2 in cooperation with the consultant on the “CGMES - HVDC Standard Interface” development and demonstration for Load flow and RMS calculations considering Hybrid AC-DC systems.
- The RDIC approves the suggestion to extend the WG2 sub-group on interoperability workstream with a member of Cigre B4.85: Open Source opportunities and needs for HVDC control models.
- The RDIC approves and requires WG2 to initiate the development of ENTSO-E position paper expressing common TSOs position regarding grid forming control technical solutions. The grid forming solutions aim to contribute to the European Green Deal targets.
- The RDIC accepts the SDC invitation to join the StG Connection Network Codes Quality Control Board and appoints WG2 to make a nomination on behalf of the RDIC.

TOP 6: WG 5 Digital & Communication

ENTSO-E Secretariat (replacing WG5 convener) presented the development of the Digital Factsheets which were reviewed and are ready to be published. The progress of the first Hackathon projects “6th Sense”, “Codro”, and “Pylon Caching” was presented by leading TSOs. The Chair were invited to present results during Innogrid2020. The plans on the second Hackathon which will take place in Prague on end-May or beginning of June were introduced and discussed.

Possible options to actualize the Digital Report were discussed. As one of the option, it was suggested to develop the Digital Use Case mapping tool for further discussion and feedback from RDIC members. The Chair highlighted that further development of digital report should reflect to the new priority areas of RDIC.

Decisions:

- The RDIC takes note of progress of the projects of the 1st Hackathon:
 - 6th sense: in addition to Fingrid, Elering, Elia, TenneT are joining the pilot

- Codro: developed a cooperation with consultants. An algorithm is developed, and the final test is expected in May 2020. Presently only Elia and 50 Hertz is part of the project, other TSOs will be invited at later stage.
- Pylon Catching: uses photos of pylons and Artificial Intelligence. More information will be sent after the meeting.

- The RDIC requests WG5 to use the lessons learned from the first Hackathon edition (strengths, weakness).
- The RDIC takes note that the second edition of TSOs Hackathon is foreseen in June 2020 in Prague and will be supported by CEPS.
- The RDIC requests WG5 to consider in the organization of the Hackathon a balance between experts, innovators.
- The RDIC requests WG5 to consider the actualization of the Digital Report with potential focus on identified elements (eg. data gathering and data exchange among business layers and with other sectors).
- The RDIC takes note of the monitoring tool investigated by WG5 for updating the data collected in Digital Report and request the WG5 to avoid lock-in developments if the activity is pursued.

TOP 7: WG1 Assets and Technologies

WG1 Convener presented the progress of the cooperation with European Space Agency (ESA). The results of feasibility studies were presented. TSOs have been invited to join the design of use-cases of pilot projects for the demonstration and test of service feasibility.

The cooperation with SDC on Technology Factsheets and the outcome of the 69th SDC meeting were introduced. The updated ENTSO-E position paper on reduction of SF6 gas emissions and introduction of alternative technologies was presented, shortly discussed and approved by RDIC. It was agreed to initiate a communication campaign on the position paper after the ENTSO-E Board approval of the paper.

Decisions:

- The RDIC takes note of the cooperation with ESA and asks the RDIC members to indicate interest to join the service piloting till 28 February 2020.
- The RDIC acknowledges the cooperation with the SDC on the Technology factsheets and mapping tool.
- The RDIC decides to approve the ENTSO-E position paper on the reduction of SF6 emissions and introduction of alternative technologies and requests to submit the paper for the approval of the Board in March 2020.
- The RDIC request that a communication campaign is made around the position paper on the reduction of SF6 emission.

TOP 8: WG4 Future of energy system

WG4 Convener presented the Terms of Reference and members list of TSOs of the Working Group. The planned scope of work, cooperation with external and internal stakeholders were introduced. The working groups workplan for 2020-2021 were discussed. RDIC suggested to prioritize activities regarding the electrification acceleration and e-mobility.

Decision proposal:

- The RDIC takes note of the ToR, WG membership and internal organisation of WG4.
- The RDIC approves the proposed cooperative way of working and the criteria for identifying priority deliverables of WG4 and encourages the cooperation of WG4 with SDC on sector coupling.
- The RDIC approves the proposed workplan and suggests to prioritize the activities regarding the electrification acceleration and the e-mobility

TOP 9: WG3 Flexibility and Economics

WG3 Convener presented the outcome of the Flexibility Factsheets validation. As a next step, WG3 introduced a survey on the needs for flexibility and distribution grid-connected assets contribution. TSOs were invited to provide information and fill-in the survey. In addition, following the suggestion of Steering Group TSO-DSO, the plans to expand the current WG3 flexibility database including TSO-DSO projects were presented. The work will result in developing new flexibility factsheets. RDIC support with resources for further development were requested. WG3 was suggested by RDIC members to make sure alignment with RDI Roadmap 2020-2030 and flagship projects topics.

Decisions:

- The RDIC approves the reviewed factsheets of the flexibility framework and recommends sharing them with the DSOs associations and the European Commission.
- The RDIC approves the survey on TSOs flexibility needs and asks the RDIC members to answer it by Q2 2020.
- The RDIC takes notes of the mapping of TSO-DSO projects and recommends WG3 to merge it with existing RDIC mapping of flexibility solutions.
- The RDIC recommends developing further the analytical framework of the flexibility solutions that are most relevant for TSO-DSO cooperation.

BLOCK 3: INTER TSO-PROJECTS & DISSEMINATION

TOP 10: Dissemination & Communication

ENTSO-E Secretariat presented the draft agenda of InnoGrid 2020 “Networks for the European Green Deal” which was reviewed and discussed. The agenda and webinar topics of the Business Network for Innovation (BNI) for 2020 Q1-Q2 were presented and discussed. The Chair highlighted the need to align the BNI topics with RDIC roadmap 2020-2030 and flagship topics. The BNI is planned to restart after Q1 2020.

Decisions:

- The RDIC takes note of the InnoGrid 2020 Conference Programme and welcomes the invitation of TSO-related projects for specific sessions.
- The RDIC takes note of the proposed Agenda for Business Network for Innovation (BNI) webinars and requests to align the BNI webinars to European flagships clusters (e.g. electrification, mobility). The webinars should start-up in April 2020.

BLOCK 4: AOB AND APPROVAL OF DECISIONS**TOPIC 11: Any other business**

Three additional notes were raised

- RDIC members suggested to include ongoing and new EU and regional projects to be on the future RDIC meetings' agenda.
- It was also suggested to invite representatives from other committees to the RDIC meeting. The Chair introduced the ongoing plans for cross-committee cooperation, which is currently done at Committee Chair level.
- The report on the RD&I Governance and Innovation Uptake were shortly discussed.

Decisions:

- The RDIC takes note of the report developed based on innovation Fridays webinars presenting the TSO RDI strategies and invites the RDIC to make available their RDI strategy information in the tool.
- The RDIC is informed about new EC funded project proposal forming and requests to have a 10-minutes slot in RDIC agendas for this type of information.

TOPIC 12: Approval of the decisions

The ENTSO-E Secretariat reviewed the draft decisions of the 50th RDIC meeting. Comments from the RDIC members were collected and amendments were made.

Decisions:

- The RDIC approved the decisions