

EXECUTIVE SUMMARY

Session 6 – DSO Customers, Regulation and Business Models

SUMMARY

There were X papers submitted to Session 6 of which 21 was presented in the main session. Another 28 papers was presented in the interactive poster sessions. The papers were oriented in 4 different blocks; 1) regulation enabling flexibility and new business models, 2) DSO risk management in a disruptive environment, 3) electrification, active customers and local energy communities, and 4) information and digitalization driving the future DSO business.

MAIN SESSION 6.1

Regulation Enabling Flexibility and New Business Models

The session covered different aspects of regulation impact like regulatory instruments, regulation analysis, regulatory sandboxes and implementing the clean energy package. Presenters were from authorities, DSO's, universities and research institutes.

MAIN SESSION 6.2

DSO Risk Management in a Disruptive Environment

The risk management in DSO's are undergoing a significant change were the risk sources, analysis of risks and finally mitigation of risks is to a great deal new. The session covered improvement to traditional asset management, climate change, power-based tariffs and electrical islanding impacts.

MAIN SESSION 6.3

Electrification, Active Customers and Local Energy Communities

Block 3 addressed different aspects related to electrification, active Customers and local energy Communities – spanning from charging concepts for EVs in high density urban areas, via the potential for household flexibility, to regulation of local energy communities - in particular regarding their integration in the electricity network structure and related grid tariffs. The speakers were from Germany, Belgium, France, Sweden, Finland and Austria. The session was relatively well attended, with quite many questions from the audience.

MAIN SESSION 6.4

Information and Digitalization Driving the Future DSO Business

Digitalization is an enabler for the future DSO business. However, digitalization introduces new risks. Block 4 gave an insight to new digital business approaches and customer relations thought new digital services. Further, differential privacy was presented to analyze data in respect of customer privacy. Finally, examples were given of security awareness in the DSO business using AI and Ripple20.

ROUND-TABLE 5 (in cooperation with Session 5)

CIRED working groups on Digital DSO and Flexibility in Active Distribution Networks

The round-table took its starting point from the CIRED working groups on digital DSO and flexibility in active distribution networks and elaborated on the impact of both digitalization and flexibility for the DSOs. The panel consisted of persons from DSO's, authority and research institute; Mariana Queiroz (EDP, Portugal), Thomas Kuhn (Enedis, France), Martin Utrilla Fernando David (Iberdrola, Spain), Matthias David Galus (Swiss Federal Office of Energy, Switzerland) and Hanne Sæle (SINTEF Energy Research, Norway).

ROUND TABLE 14

Energy Transition Roadmaps (An International Benchmarking)

The round table illustrated the research and innovation challenges that must be tackled by the upcoming research and innovation programmes in order to support the large scale deployment of solutions that aims at enhancing grid flexibility, local consumption, sector integration and customer participation to the management of the grids.

Jan Okko Ziegler (Enel group, Chairman of the European Technology & Innovation Platforms for the development of Smart Networks for Energy Transition – ETIP SNET) illustrated the vision 2050 and the roadmap developed by the most outstanding stakeholders of the European energy sectors. These documents describe the challenges that the European system must face in order to develop a low-carbon, secure, reliable, resilient, accessible, cost-efficient, and market-based pan-European integrated energy system supplying the whole economy and paving the way for a fully CO₂-neutral and circular economy by the year 2050, while maintaining and extending global industrial leadership in energy systems during the energy transition.

Mark Mc Granaghan, vice president of EPRI, illustrated the research and innovation strategy of the US, describing the pilot projects that have been realized in USA for developing and testing innovative solutions with particular focus on solutions aimed at developing and integrating microgrid into the current electricity networks

Samuele Larzeni, member of ARERA, the Italian regulatory agency, presented the actions and the initiatives developed by the Italian regulators in order to support the research and innovation programmes developed by research centers, manufacturers and network operators. Finally Ludwig Karg CEO of BAUM consulting group illustrated the experience that his group had developed in past European and international programmes aimed at involving end customers in the active management of the grid highlighting the best practices and lessons learnt during the development of these projects.

ROUND TABLE 16

Business Impact of COVID-19

The round table discussed business impact and lessons learned in the electricity sector through out the COVID-19 pandemic. In the panel were Rodolfo Martinez, Iberdrola (Spain) representing the E.DSO organization, Mark McGranaghan, Electric Power Research Institute (Ireland/USA) and Franck Blanchard, Nexans (France).

ROUND TABLE 18

Customer Engagement, Interconnection of Markets and Stakeholder, and Flexibility – EU Projects, Results and Next Steps

The round table gave several EU projects the chance to present and discuss their results, demonstrations and lessons learned. With diverse spectrum of views and experience by TSO (John Wallace, EirGrid), DSO (Diogo Lopes, E-REDES), companies (Sirpa Repo, enerim and Katerina Valalaki, Hypertech), academia (Tuan Le, Chalmers University) and stakeholder platforms (Jan Okko Ziegler, ETIP SNET) the panel discussed the potential 'tool box of the energy transition' and how to engage and connect stakeholder and markets.

POSTER TOURS

28 papers was presented in four interactive poster sessions matching the topics of the main session.

CONCLUSIONS

Good papers, presentations and discussions of important areas of DSO regulation and business with a high impact from digitalization, electrification, flexibility and covid-19.