

THE FIRST INTERNATIONAL ONLINE VIDEO-CONFERENCE ON ELECTRICITY TRANSMISSION AND DISTRIBUTION NETWORKS SUCCESSFULLY MANAGED BY THE ROMANIAN ENERGY CENTER

19th of May 2020, Mihai MACARIE

Romanian Energy Center (CRE) organized on 30th of April 2020 the first International online video conference under the title „*Integrated Approach in the Management and Operation of Electricity Transmission and Distribution Networks*”. The format of the Event was an International Stakeholders Consultation focusing on the preliminary results and synergies within six European H2020 Projects: SOGNO, WISEGRID, PHOENIX, CROSSBOW, EDDIE and DEFENDER.

Below a summary of the second Sessions and subsequent Panel which were moderated by Cristian COLTEANU, Director of Strategy and International Affairs at the Romanian Energy Center Association.

According to Mr. COLTEANU, we are currently facing complicated times that will trigger a paradigm shift in the debate and assurance of energy supply (historically taken for granted), the interface between stakeholders and the increasing role of consumers turning into prosumers. Moreover, we are witnessing the developments of “smart everything” – Internet of Things, block chain, big data analytics, the evolution into the industry 4.0 and artificial intelligence, all connected to cyber security and critical infrastructures.

SESSION 2: DEVELOPMENTS IN THE STANDARDIZATION FOR THE POWER SECTOR

Session 2.1 / Keynote address – The role of ACER in adapting the existing market rules to new emerging market realities.



Bogdan CHIRITOIU, member of board at the Agency for the Cooperation of Energy Regulators, highlighted the difference between the competition world and the energy world, the former having a very strong European dimension. According to Mr. CHIRITOIU, the competition policy is much more European than national, a trend that would be beneficial also for the energy policy framework. Furthermore, the current paradigm and goal of energy self-sufficiency is too expensive and not the best way for the future. Cooperation is the key, which will also provide the opportunity to share costs and achieve the national objectives in a cost-effective manner. In this regard, ACER facilitates collaboration between national regulators by also ensuring market monitoring. Moreover, ACER is providing a constant role in supporting the energy transition and the European Green Deal.

Session 2.2 / Keynote address – Standardization of blockchain technology in the power sector – roles and development directions

Ioannis VLACHOS, Project Manager at the National Technical University in Athens, presented the blockchain initiatives in Europe, starting with the 2018 resolution of the European Parliament on distributed ledger technologies and blockchains: building trust with disintermediation (2017/2772 (RSP)). According to Mr. VLACHOS, blockchain technology can democratise the energy markets and can support the production and consumption of green energy while improving the efficiency of energy exchanges. Moreover, it can facilitate the energy transmission and distribution infrastructures by creating a new transaction ecosystem and support the electrification of poor and rural communities and resolve the issue of energy poverty. Key initiatives in Europe regarding blockchain: The European Telecommunications Standards Institute, CIRED, ETIP Smart Networks for Energy Transition, CEN-CENELEC and the EU Blockchain Observatory and Forum. Regarding the Horizon 2020 framework and EU funded projects in blockchain technology, the top three domains are cybersecurity, IoT and healthcare. Specifically for the energy domain, blockchain related projects focus on demand response, flexibility markets, P2P (peer to peer) energy trading and the guarantees of origin trading.



Session 2.3 / Keynote address – Impact of the results and proposals of EU funded projects on standardization – SOGNO and CROSSBOW



Dan PREOTESCU, Project Manager at Romanian Energy Center Association, introduced the project [CROSSBOW](#) – Cross border management of variable energies and storage units enabling a transnational wholesale market, of which objectives are to provide support for increasing the integration of RES into the power systems, electricity market integration at European level and promoting and supporting the cooperation between TSOs and DSOs at regional level. According to Mr. PREOTESCU, the future role of DSOs is changing, considering that increased cooperation is being required between TSOs and DSOs in order to maintain the quality and safety in operation of power systems. Dan Preotescu raised some questions for debate during the next panel, regarding the level of clarity of standardization framework, the interconnection between the regulatory and standardization frameworks and how they can be used together

to achieve better results. Lastly, the following speakers have been invited to constructively question the need for new standards and the opportunity of developing European standards.

Session 2.4 / Keynote address – Standardization challenges in energy critical infrastructure – DEFENDER experiences

Denis ČALET, President of the Board at the Institute for Corporate Security Studies (ICSS Ljubljana) introduced the [DEFENDER](#) project (Defending the European Energy Infrastructure) which involves 18 partners from 9 countries. The project is definitely contributing to the EU's policy goals in the sense that it is analysing (1) the new and future complex threats to critical energy infrastructure as well as the selected scenarios of threats, (2) the processes and procedures that address certain security gaps in the field of physical and cyber security and (3) the interdependency between critical energy infrastructure and other critical infrastructure sectors. Moreover, the project already established the DEFENDER Critical Energy Infrastructure Security Stakeholders Group (CEIS-SG), aiming to exchange best practices, new knowledge and developments. According to Mr. ČALET, we are still in the silos procedural organizational disposition, which is problematic and should be changed, together with identifying opportunities by using standardization to build a stronger environment regarding procedures. The DEFENDER project is contributing to standardization in both security and operational fields, such as guidelines for informational security and threats assessment to industrial system controls, vulnerability management regarding protection of critical energy infrastructure, liaison with and impact to ENTSO-E procedures, new potential standards regarding technical security systems, communication protocols and data exchange etc. DEFENDER efforts in the field of standardization target the standard family of ISO 27000 (information security).



PANEL DISCUSSION: THE ROLE OF REGULATION AND STANDARDIZATION AND THE POTENTIAL IMPACT IN THE POWER SECTOR

Moderator:	Panelists:			
				
Cristian COLTEANU Director Strategy & International Affairs Romanian Energy Center	Claudia BRANDUS President Romanian Wind Energy Association	Zoltan NAGY-BEGE Vice-president of Romanian Energy Regulatory Authority	Massimo BERTONCINI Senior Innovation Manager Engineering Ingegneria Informatica SPA	
				
	Mate CSORBA Global Service Line Leader for Cyber Security DNV GL Digital Solutions	Dan PREOTESCU Project Manager Romanian Energy Center	Mihaela ALBU Professor University POLITEHNICA of Bucharest	
				
			Iuliana CHILEA General Director ASRO	

The role of Regulation and Standardization and the Potential Impact in the Power Sector

The panel discussed the issues of software products and implementation at national and regional levels, regulatory implications, the impact of digitalization on standardization and standardizing cyber security products and services.

According to Mr. Zoltan NAGY-BEGE, Vice-president at the Romanian Energy Regulatory Authority, the future of the energy sector and grids will be different, investments being needed to achieve interoperability and prepare the electricity grids for the carbon neutral goal of the European Commission, ANRE being a reliable partner for the industry in the transition towards the low-carbon economy. Furthermore, Mrs. Claudia BRÂNDUȘ President of the Romanian Wind Energy Association, stressed the importance of changing the flow of the regulatory framework, which should follow the business instead of blocking the business environment, by also making regulations more flexible. Forward, Mr. Mate CSORBA, Global Service Line Leader for Cyber Security at DNV-GL Digital Solutions, pointed out that cyber-attackers act faster than the current elaboration speed of standards and stressed that we must apply what is out there whilst improving industrial consensus. Also, according to Mr. CSORBA, new services and products are required to mitigate the cyber security threats of the foreseeable future, by employing artificial intelligence and new and improved algorithms, for which more practical standardization is needed.

Further on the panel discussions, professor Mihaela ALBU framed standardization into three words, time, cooperation and openness. Mrs. ALBU highlighted the long time required to develop new standards, by citing the grid integration of RES of which terms, definitions and symbols required four years for completion. Moreover, professor ALBU emphasized that we much change the way we collect, represent, process, and use information in the power systems. Following the conversation, Iuliana CHILEA, General Director of the National Standardization Body in Romania, pointed out that standardization framework is harmonized and is meant to support European industry and European legislators. According to Mrs. CHILEA, the mission of standards is to enable devices to interoperate and intercommunicate. Moreover, regulations set the general requirements while standards go deeper into details to ensure that technical subjects are aimed to facilitate the legislative requirements. Lastly, consistency between European and national standards is a must.

In his final remarks, Mihai PAUN salutes the results of the videoconference and draws upon the potential developments and expectations regarding regulation and standardization as well as the key messages of the stakeholders' consultation meeting: collaboration, cooperation and openness are key for the success of the energy industry, additional innovation is needed, accelerating research and innovation in cyber security as well as strengthening cyber security preparedness are important elements in the list of future actions, education is key as well as professional reconversion, energy system integration strategy is important to address the smartness of grids, managing operating and regulating the smart grid and last but not least the European Commission's mandate on standardization will support the European Green Deal and the industry with new services, more ICT and by using existent standards and evaluation of products.

