## SOUTH EASTERN EUROPEAN REGION OF CIGRE SEERC





### Second SEERC Workshop Resilience of Electrical Grids: "State of Art, Best Practices and Operational Aspects" Virtual Meeting - January 26, 2021 (09.45-14.30)

#### Chair: Massimo Pompili Co-chair: Kresimir Bakic Moderator: Klemens Reich

**Objective and topics:** Unexpected extreme events ranging from cyber-security attacks, adverse weather conditions and other natural disasters, combined with changes in power system and generation technology, consumer behavior, and energy policy targets to decarbonize the electrical sector, increasingly impose serious risks to electric generation, transmission, and distribution systems. In proactive management of such risks and to assure a continuous, reliable, and affordable supply of energy, power transmission and distribution, system operators are continuously engaged in development and deployment of innovative technologies that can help ensure a higher resilience of their systems during such events.

The 1st SEERC Workshop "Resilience of Electrical Grid: Events and Solutions" Resilience of Electrical Power and Energy Networks" has been held at the University of Roma "La Sapienza" on January 26, 2018 and concerned general aspects of electrical resilience from SEERC prospective.

The 2nd SEERC Workshop will take place in the same day as in 2018 but in virtual mode, considering the worldwide pandemic situation. This event will be mainly devoted to "State of Art, Best Practices and Operational Aspects" of Electrical Resilience.

The workshop is devoted to electrical community, engineers, and researchers, to present their findings, research and experiences in the field lying within, but not limited to, the following topics (medium and high voltages):

- Operational aspects of resilience
- Critical infrastructure resilience to extreme events
- Current system planning methods and asset management standards used for power system infrastructure investments by system operators
- Effects of adverse weather conditions and other natural disasters on electrical systems
- Cyber-security attacks and power grid resilience
- Prevention, recovery, and survivability of electrical systems in case of extreme events
- Innovations in drafting standards, construction guidelines, maintenance routines, inspection procedures, and recovery practices of electrical systems
- Enhanced resilience through energy storage deployment and microgrids
- Emergency response and early warning technologies for electrical resilience

#### **Call for participation:**

We kindly invite all National Committees for participation with interesting solutions, events or other contributions related with resilience of grid in your electric power system.

At the end of program, we suggest to open discussions and contribution to all other experts from the any country but respecting limited 10 minutes per speaker.

Send your proposal for contribution to follow e-mail: kresimir.bakic@gmail.com and

massimo.pompili@uniroma1.it

Participants and interested people have to register using Qr-code or this link: http://bit.ly/SEERC-SAPIENZA

E-workshop will be open to all Cigre community

The e-workshop link will be sent to all the registrants few days before (Zoom system)

# **WORKSHOP - Final program**

Chair: Massimo Pompili

Co-chair: Kresimir Bakic Moderator: Klemens Reich

TIME	Name	Country	Title
10.00	OPENING OF THE WORKSHOP (Dr. Philippe ADAM, Secretary General of CIGRE)		
10.10	Enrico Maria Carlini	Italy	System separation in the continental Europe synchronous area - 8th January 2021 event
10.20	Zoran Bunčec, Lidija Pnjaček	Croatia	Earthquake effect on the HOPS Power transmission system
10.30	Enrico Maria Carlini, Michele Poli	Italy	Operational procedures to strengthen resilience against natural phenomena
10.50	Mehmet Kara	Turkey	Structural and operational resilience of Turkish power system
11.05	Mileta Žarkovic	Serbia	<i>Resilience, optimization of power system in order to increase reliability and reduce the number of failures caused by extreme lightning and switching Very Fast Transients (VFT) overvoltages (SC4)</i>
11.35	Yuriy Bondarenko	Ukraine	Cyber security improvements in last 3-4 years related to resilience of grid
11.50	Ioannis Kampouris	Greece	<i>Rethinking on "Resilience" of electric power systems in the view of the addressed evolutions</i>
12.05	BREAK for coffee, tea	-	10 minutes break but connection will be open
12.15	Valentić, Franković, Riteh, Jušić, Jančić	Croatia	Croatian islands supply issues
12.30	Ciprian Hosu, Anamaria Iamandi	Romania	Using synchro-phasors technology to monitor and improve the resilience of the Romanian transmission grid
12.45	Reich Klemens	Austria	Helps from space
13.00	Janko Kosmač	Slovenia	Icing early warning system and procedures at ELES
13.15	Danilo Lalović	Serbia	Concept and implementation of multiservice IP MPLS network carrying operational traffic with aspects of resilience and security (SC D2)
13.30	Archil Kokhtashvili, Giorgi Amuzashvili	Georgia	Security analysis module of Georgian state electric power system
13.45	Massimo Pompili, Luigi Calcara, Domenico De Bartolomeo and Michele Mazzaro	Italy	Network failures reduction and overloadability through the use of natural esters transformers
14.00	Open discussions and contribution to all other experts from the any country		
14.15	Closing remarks by Prof. Maks Babuder		
14.30	Closing of the workshop		