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### **Dates & Deadlines**

#### August 5, 2024:

Complete manuscripts must be submitted by August 5, 2024 via email to GOTF@tamu.edu. The paper should be formatted in accordance with the CIGRE Publications Guide.\*

#### September 9, 2024:

Notification of acceptance.

#### October 14, 2024:

Deadline for submission of final paper with required changes.

### **Tutorials**

The conference has reserved space for smart grid tutorials and panel sessions.

If you are interested in organizing a tutorial or panel session, please contact John McDonald, Technical Program Chair at **johndougmcd@gmail.com**.

## **Symposium Chairs**

#### **Chris Root**

USNC President christop\_root@comcast.net

#### **B. Don Russell**

CIGRE USNC Secretariat USNC Vice President Administration Texas A&M University bdrussell@tamu.edu

#### John McDonald

Technical Program Chair JDM Associates, LLC johndougmcd@gmail.com

#### **Sharon Loe**

Program Coordinator Texas A&M University s-loe@tamu.edu

\*available at: cigre-usnc.org/grid-of-the-future-2024

# Call for Papers & Participation



# **Technology for the 21st Century Electric Utility**

The Grid of the Future Symposium, sponsored by the *CIGRE US National Committee (USNC)*, with the theme Technology for the 21st Century Electric Utility, will be held **November 11–14, 2024** in **Raleigh, NC**.

The Symposium, hosted by **Quanta Technology**, will be a forum for the participants to discuss state-of-the-art innovations in generation, transmission, distribution, and innovative smart grid technologies.

Grid of the Future 2024 will feature plenary sessions, technical paper sessions, and tutorials by international experts. Contributions from Next Generation Network (NGN) young engineers are encouraged.

# The Symposium scope covers the following general topics:

**Enhancing Grid Resilience**: Infrastructure Resilience, Microgrids, Resilience Quantification, Big Data for Resilience, Resilience Planning, Aging Infrastructure & Asset Management, FLISR, DC Microgrids, Proactive Reconfiguration, Community Resilience, Localized Resilience Benefits, Battery Energy Storage System (BESS), Mobile Storage, Long Duration Storage, Wind and Solar Integration

**Grid Operation, Automation & Management**: Modern Energy Management Systems (EMS), ADMS, Renewable Integration, Solar & Storage Microgrid, Long-Duration Storage, Mobile Storage Applications, Demand Response, Energy Efficiency, Innovations in Battery Chemistry, Battery Diagnostics, Cybersecurity Standards, Advanced Communication Applications, Fiber, LTE, 5G, Broadband, IoT-based Wireless Technologies, Software Defined Wide Area Network (SD-WAN), Network Function Virtualization (NFV), Edge Computing, Smart EV Charging, Vehicle-to-Grid (V2G), Vehicle-to-Anything (V2X)

**Climate Change Adaptation:** Climate Risk to System Assets, Managing the Impact of Decarbonization, System Hardening, Improving Grid Biodiversity, Innovative T&D Engineering to Limit Environmental Impacts, Life-Cycle Assessment, Generation Planning, Policies and Regulations, Migration Effects, Clean Energy During Pandemic and Global Unrest, Distribution Markets

**Intelligent Protection and Controls**: Voltage Optimization, T&D Monitoring, Adaptive Relaying, Automation and Restoration, Bi-directional Power Flow, IEC 61850, Digital Substation, System Reconfiguration, DERMS, Home and Building Automation, DER Protection Study, DER Integration and Control

**Beneficial Electrification**: Smart Cities, Smart Villages, Smart Homes, Managed Charging, Fleet Electrification, Vehicle-to-Grid (V2G), Vehicle-to-Anything (V2X), Autonomous Vehicles, Extreme Fast Charging, Plug-in Hybrid EV (PHEV), Wireless Charging, Building Electrification, Conservation Voltage Reduction, Industrial Electrification

**T&D Modeling, Sensors and Data Analytics**: Integrated Resource Planning, Renewable Integration Planning, Real-time Modeling, Hardware-in-the Loop (HIL), Control-HIL, Digital-Twin, DER Modeling, Hybrid AC-DC Systems, Cyber-Attack Modeling, EV Modeling and Simulation, EV Planning Studies, Synchrophasor Technology, Power Quality, AMI Data, Bellwether Meters, Low-Cost Sensors, Big Data, Quantum Computing, Blockchain, Artificial Intelligence, Machine Learning