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Reference: **SESSION\_2022\_B2**

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Type:

**Session Materials**

Title:

**Session 2022 - SC B2 Package**

[Session registration account](#)

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### Videos

#### General

- Opening Ceremony
- Opening Panel
- Next Generation Network forum
- Women In Energy forum (2 videos)

#### SC B2

- Group Discussion Meeting 1
- Group Discussion Meeting 2
- Workshop B1-B2-B4-C1 - Extra-long transnational transmission lines
- Tutorial WG B2.64 - Inspection and testing of tools, equipment and training for live-line work on overhead lines

### Documents PDF

#### Session Papers & Posters

- **10135** Development of Methodology for Insulator Replacement in  $\pm 800$  kV DC Strings Using Live Line Procedures

- **10138** Wildfire Detection System Using Artificial Intelligence with the Collaboration of the Web Society
- **10146** Transmission System Reliability in the Face of Climate Change
- **10152** Development of a Novel Conductive Garment for Protecting Linemen against Transmission Line Induction
- **10155** Resilience and Reality: Unique Challenges and Learnings from Circuit Resiliency Project Planning and Execution
- **10278** Overhead Line Insulators in Operating Constraints Under Severely Polluted Conditions: the Benefits of Silicone Coated Glass Insulators and their Application at the PG&E Diablo Canyon Nuclear Power Plant
- **10300** Analysis of The Ice-shedding of Wire Based on Elastic Deformation Principle
- **10302** A Novel Method for Pollution Detection of External Insulation
- **10303** Experimental Study of Dynamic Bending Stiffness of Overhead Conductors with Formed Wires
- **10304** Next-Generation Intelligent Maintenance for Over-Head Electric Power Facilities Using Edge Cloud Collaboration
- **10306** Altitude correction method of electromagnetic environment for HVDC transmission line and its engineering application
- **10361** Experience Use of Bird Protection Devices on Power Lines and Environmental Impacts
- **10362** Plastically Compacted Steel - aluminium Wires for New Overhead Lines
- **10363** Application of a Fibre Bragg Grating-based Sensing System for Icing Detection and Structural Health Monitoring of Transmission Lines in Russia
- **10364** Selection System of High-voltage External Insulation for A.C. and D.C. Electric Transmission on the Basis Pollution Mapping
- **10445** Selection of Porcelain Insulator Components for Transmission Lines in High Altitude and Exposure to Ice and Snow
- **10446** Design and Testing of UHV 765/400 KV Transmission Line Monopole Structures Powergrid's Experience
- **10447** Improvement of Bearing Capacity of Soil using Bamboo Nailing and Sand Piling for 400kV Transmission Line Tower Foundations in Tripura, India
- **10448** Powergrid Experience on Installation of Transmission Line Arresters in EHV Transmission line
- **10449** Design Innovations for Mitigating Construction Challenges of Overhead Lines
- **10515** Countermeasures for high and extreme ice loads typical for Norwegian environment based on concept of heating
- **10539** Full Scale Test of the 400 kV double circuit pylons (Wintrack type III)
- **10540** How to increase Resilience by assessment based on study case 400 kV Overhead Line Stevin – Horta in Belgium
- **10546** Safe Management of Work in High-Voltage Overhead Lines in The Netherlands
- **10576** Optimization of Vegetation Management with Lidar Inspection. Real Application Case
- **10577** Artificial Intelligence in the Diagnosis of Fault Causes in Transmission Lines
- **10580** Preparatory analysis to establish a reliable and efficient DLR system
- **10624** Corelation between tensile Force in Conductors and Stress loading of tensile Towers

- **10629** Latest design Standard on Structures for Transmissions in Japan
- **10630** Deterioration diagnosis-imaging Technology and deterioration countermeasure Technology for overhead transmission line
- **10631** Evaluation of long-term Reliability of the carbon fiber core Wire and Development of Technologies to expand its Application
- **10632** Evaluation of residual mechanical performance of damaged conductor strands due to AC fault arcs for rational repair of overhead line
- **10633** Rationalization of maintenance Methods for hot-dip galvanizing transmission Tower
- **10634** Efficacy of Loose Spacers in Mitigating Galloping of Bundled Conductors
- **10669** Applications of multi-stress Test Methods to evaluate today's Composite Insulator Reliability
- **10670** Upgrading the transmission capacity of existing high voltage lines using insulated suspension chain ISC
- **10698** A Study on the Life-Time Assessment Ways and Various Failure Types of 154kV Porcelain Insulators Installed in South Korea
- **10718** Innovative inspection techniques and digital tools for condition follow-up of overhead lines in Belgium
- **10719** Environmental impact mitigation for new 110 kV line in natural protected area
- **10757** RTV Coated Insulators in Harsh Desert Environment
- **10766** Operational Evaluation of RTV Coating Performance over 17 years on the Coastal Area at Jubail-SA
- **10775** Design and protection criteria for passive loops on a 400 kV double circuit line
- **10776** Refurbishment of sectionalizing posts on 245 kV towers for a reduced visual impact and an increased line resilience
- **10797** Electrical environment evaluation of HVAC/HVDC hybrid transmission line using a reduced scale-model
- **10852** Electromagnetic interference investigation of two overhead lines with a natural buried gas pipeline: An investigation on the Agri-Horasan Region in Turkey
- **10853** Site Application of Anti Torsion Pendulum and Interphase Space for the Prevention of Ice Load on Transmission Line Systems in Turkey
- **10887** Metamodel applied to fatigue damage in overhead lines conductors
- **10888** Overhead towers specially designed to be lift by helicopters.
- **10889** 2x400kV composite pylon ready for use, innovative and compact – reducing the impact of OHTL considerable
- **10908** Compliance analysis of exposure limit values of power frequency electromagnetic fields during live-line working on HV overhead lines
- **10911** Dynamic line rating in the Spanish overhead transmission network
- **10914** Affordable towers compaction using aerospace-borrowed lattices
- **10915** A wearable system for Work at Height Safety Management
- **10963** Worlds longest Span with ACSR Conductor – Design challenges
- **10974** Design of Overhead Lines in a Changing Climate
- **10975** Structural reliability analysis of Transmission Line towers by use of advanced Weather Modelling
- **10976** Development of Aluminium Tower for 420 kV AC line to reduce environmental impact

and safety risks under construction

- **11024** Development of lifting device for raising height of existing towers of overhead lines
- **11074** Probabilistic safety concept in overhead line construction
- **11076** Design and construction of a high and heavy lattice tower for 380 kV transmission line
- **11141** Case Study: Measuring the Size of Electrical Conductors using Lidar Scanning
- **11142** Towards a predictive model for the residual strength of PMC composite core in HTLS conductors in function of the operating conditions
- **11143** An Empirical Analysis of the Operational Efficiencies and Risks Associated with Static, Ambient Adjusted, and Dynamic Line Rating Methodologies
- **11144** Full-Scale Tests for the Purpose of Verifying the Method for Determining the Boom of the Wire Sag by the Period of its own Oscillations
- **11145** Correlation of the Surface Wettability and the Audible Noise Emission of Overhead Line Conductors

### Workshop

- **Workshop B1-B2-B4-C1** - Extra-long transnational transmission lines

### Tutorial

- **Tutorial WG B2.64** - Inspection and testing of tools, equipment and training for live-line work on overhead lines

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- **Session 1** - Energy Transition on Power Equipment
  - **Session 2** - Changes in Planning and Design of Transmission and Distribution Systems
  - **Session 3** - Re-designing regulatory & market tools considering sector coupling scenarios

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More Informations :

**File Size:**154,1 MB **Study Committee :** B2 **Year:**2022

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