CEATI Transmission Conference Fall 2022 – DAY 1

7:00-8:30 Breakfast

8:30-9:45 Welcome Plenary

8:30 **Opening Remarks** – *Lizzie Smith & Ari Kelenson, CEATI*

8:45 **Keynote Presentation: Evolving Climate Risks to Power Systems**
Francis Zwiers, Pacific Climate Impacts Consortium

9:45-10:30 Coffee Break

Session 1A: Impacts of Climate Change on Transmission Line Rating

10:30 **Thermal Ratings and the Impact of Climate Change –** *Rob Sunderland, Digital Engineering*

11:00 **Challenges and Impacts of Climate Stresses for *Transmission Lines* –** *Yury Tsimberg, Kinectrics*

11:30 **The Role of Grid Enhancing Technologies in Fighting Climate Change –** *Joey Alexander, Ampacimon*

Session 1B: Grounding and Lightning Protection & Performance

10:30 **Power Generation Plants: Grounding Maintenance & Inspection for Climate impacts –** *Dr. Carlos Mata, Scientific Lightning Solutions*

11:00 **Southern Company's Approach to Direct Lightning Strokes –** *Biren Patel, Biren Patel Engineering & Chris Cameron, Southern Company*

11:30 **Climate Impacts on Lightning Protection & Grounding –** *Hilton Mills & Lee Howard, Hood Patterson & Dewar*

Session 1C: The Impact and Preparation for Climate Change - Station Equipment

10:30 **A Novel Process for Detecting Leaks in Sealed Transformers –** *Mark Gross, Vaisala*

11:00 **Station Storm Hardening - Lesson Learned –** *Ivan Hojsak, Central Hudson*

11:30 **Making Grounding System More Resilient in the Era of Extreme Climate –** *Rob Otal, METSCO*

Session 1D: Strategic Planning for Vegetation Management for Climate Change Adaptation

10:30 **Undetectable Danger Trees –** *Jeff Pauska, Hitachi-Energy*

11:15 **Actionable Data, an Aerial Saw, and Expertise in the Field: A Winning Combination –** *Caleb Williams, ECI*

Session 1E: The Impact of Climate Change on Underground Cables

10:30 **Effect of Climate Change on Operation of HV UG Power Cables –** *Deepak Parmar, GeothermUSA*

11:15 **Health Monitoring of Underground Power Cables by Distributed Strain and Temperature Sensor –** *Lufan Zou, OZ Optics*

12:00-13:30 Networking Lunch

Session 2A: Transmission Planning for Extreme Events

13:30 **Design Loading Against Expected Climate Change –** *Brian Townsend, AltaLink*

14:15 **Impact of Climate Change and Adaptation to Climate Extremes in Overhead Line Design –** *Abdollah Shafieezadeh, Ohio State University*

Session 2B: Transmission and Distribution Grounding

13:30 **Grounding System Testing Methods – An Update on IEEE and Other International Developments –** *Stephen Palmer, Safearth*

14:00 **Do We Need to Continue to Ignore High GPRs on Transmission Towers?–** *Bill Carman, Bill Carman Consulting & Hamed Ahmadi, BC Hydro*

14:30 **Expected Impact of Drought Conditions on the Lightning Performance of Transmission Lines –** *Bryan Beske, Safearth*

Session 2C: Engineering Standards and Climate Change Frameworks

13:30 **RELi – a framework for climate change adaptation and resilience strategies for project sites –** *Doug Dietrich, Burns & McDonnell*

14:15 **Understanding the Revisions to PC57.104, the Guide for Gas Generation in Mineral Oil-Immersed Transformers –** *Scott Reed, MVA Diagnostics*

Session 2D: Vegetation Management Best Practices

13:30 **Vegetation Management Optimization Program –** *Ryan Moe & Bert Stewart, National Grid*

14:00 **Effective Long Range Vegetation Management Plan –** *Lewis Payne, New York Power Authority*

14:30 **CUFs, Covid and Cieslewicz: Lessons Learned –** *Nick Ferguson, UVM Podcast*

Session 2E: Advanced Diagnostic and Testing Underground Cables

13:30 **20 Years of Experience with Electrical Testing of HV & EHV Cable Systems –** *Mark Fenger, Kinectrics*

14:15 **Advanced Monitoring of Transmission Cables using DAS Technology –** *Frank Frentzas, ComEd*

15:00-15:45 Coffee Break

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Session 3A: Transmission Operations for Climate Change Adaptation

15:45 **Climate Change and Ageing Infrastructure: The Benefits of a Sampling Framework for Overhead Line Inspections –** *Oisin Armstrong, Frank Stafford ESB*

16:30 **Building a utility UAS Program and Utilizing Inspection Imagery for Cost-Effective Planning and Reliability Improvement** – *Alex Babakov, Aeriosense Technologies*

Session 3B: Wildfires -The Importance of Grounding

15:45 **The Role of Grounding in Wildfire Prevention for Improving Safety and Resiliency of T&D Systems –** *Mazana Armstrong & Vidya Vankayala, Powertech Labs*

16:15 **Can Neutral Point Grounding be Used to Eliminate Wildfire Ignition and Touch Voltage Hazards?–** *Bill Carman, Bill Carman Consulting*

16:45 **How OHGW, Grounding and Arresters Affect the risk of Wildfires-** *Jonathan Woodworth, ArresterWorks*

Session 3C: Substation Planning & Operations for Extreme Events

15:45 **The Five G Experience - A Journey in Reducing Avian Impacts on Substations –** *Cory Akins, AltaLink*

16:15 **Prepared for Every Season –** *Tony Hurley, Critical Preparedness*

16:45 **Dynamic Monitoring of Substation and Transmission Assets –** *Rob Otal, Peter Nearing METSCO & Younglae Kim, ENMAX,*

Session 3D: Supporting and Emerging Technologies for Vegetation Management

15:45 **Digital Corridor Management: Turning Technology Solutions to Programmatic Execution** *Scott Rogers, ECI*

16:15 **Digital Approach to Vegetation Management –** *Roman Tomažič ELES*

16:45 **Solving the Planning Problem: Integrative Planning Software for Long-Term Resilience –** *Jeff Pauska, Matt Ou Hitachi Energy*

Session 3E: Asset Management Initiatives

15:45 **Fluid Filled Cable Replacements – Managing Replacement Projects in Congested Urban Locations** *Robert Arthur, ESB Networks*

16:30 **The Application of Self-Healing Dielectric Fluids for the Autonomous Repair of Fluid-Filled Cable Circuits –** *Rhys Rhodes, Kinectrics*

17:30-19:00 Networking Reception – Expo Hall

CEATI Transmission Conference Fall 2022 – DAY 2

7:00-8:15 Breakfast

Session 4A: The Impacts of Wildfires on Transmission Equipment

8:15 **Enhance Asset Flight Inspections to Address Fire Mitigation –** *John Lauletta, Exacter*

8:45 **Wildfire Effects on T&D Systems and Corrosion Sensors –** *Dr. Zee, Matergenics*

9:15 **Enhanced Inspection Methods of Electric Transmission Assets for Wildfire Mitigation –** *Chelsea Chaoyang Liu & Casey Davis, Exponent*

Session 4B: Substation Grounding

8:15 **Parametric Analysis of Distribution System Fault Impacts on Substation GPR –** *Rob Schaerer, Power Engineers*

8:45 **Rock Testing Using the Honey Bucket Method –** *Brandon Dobrowski, Safearth*

9:15 **Design & Performance of Grounding Systems –Extreme Droughts and Floods–** *Todd Sirola & Rick Kennerly , SAE*

Session 4D: Leveraging Satellite Technologies for Vegetation Management

8:15 **Turning Aerial Imagery into Operational Information for Utility Vegetation Management –** *Christian Nadeau, Effigis*

8:45 **Delivering Member Savings with Satellite Vegetation Intelligence –** *Kait Creamer, Overstory*

9:15 **How Satellites and AI Transform Grid Resilience and Adaptation to Climate Change –** *Robert Warwick, AiDash*

Session 4E: Life Extension of Underground Cables

8:15 **Extending the Life of Underground Transmission Lines Through Cable Rejuvenation** – *Wayne J Chatterton & James Steele, Novinium*

8:45 **Best practices for UG cables – CEATI Transmission Underground Cable Reference Manual** - *Gerry Sheerin, Consultant*

9:15 **Condition-Based Maintenance Programs for the Life Extension of Aging Cable Systems –** *Joseph Aguirre, Megger*

9:45-10:30 Coffee Break

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Session 5A: Grid Resiliency and Preparedness

10:30 **Understanding Resiliency in Overhead Line Design –** *Leon Kempner, Bonneville Power Administration & Asim Haldar, CEATI*

11:00 **Grid Resiliency Preparedness Identifying System Threats, Vulnerabilities and Risks -** *Richard Steeg, DiGioia Gray*

11:30 **Transmission Lines Under High-Intensity Wind –** *Ashraf El Damatty, University of Western Ontario*

Session 5B: Grounding and Lightning for Renewable Energy Systems

10:30 **Grounding and Lightning Protection to Reduce Stress on Photovoltaic Equipment –** *Ivan Grobbelaar, DEHN*

11:00 **Methodology for Modeling and Analyzing Utility-Scale PV Grounding Systems –** *David Lewis, EasyPower*

11:30 **Wind Turbine Grounding** *Martin Havelka, nVent ERICO*

Session 5C: Emerging Technologies

10:30 **Elements of Strategic Approaches to Climate Change Response –** *Kenneth Elkinson & Tony McGrail, Doble Engineering*

11:00 **Blue Gas Insulated Switchgear** *Paul Roskilly & David Wilson, Siemens Energy*

11:30 **The Potential Role of HVDC in Improving Grid Resilience** *Kerry Walker, Hatch*

Session 5D: Wildfires Prevention and Mitigation in Vegetation Management

10:30 **Mitigating Wildfire Risk to Radial Transmission Lines–** *Amber Lahti & Michael Vieira- Manitoba Hydro*

11:00 **Mitigating Risks Associated with Distribution Overhead Systems and Wildfire** *Jim Downie- EDM International*

11:30 **Industry Best Practices in Wildfire Management** *Robert Otal, METSCO & Thor Jonsson, EthicalAI*

Session 5E: Corrosion Prevention for Underground Cable Systems

10:30 **Corrosion Monitoring and Installation Considerations –** *Ben Bussard, Consulex*

11:15 **Operation and Maintenance of Pipe Type Systems-** *Frank Frentzas, ComEd*

12:00-13:30 Networking Lunch

Session 6A: Panel Discussion on Utility Practices in a Changing Climate Environment

13:30 Transmission Design Professionals will share Experiences and Practices from Across the Globe - *Sandya Neelawala, ATCO, Leon Kempner, Bonneville Power Administration, Brian Gallagher, ESB Networks, Pablo Rodríguez, ,Red Electrica*

Session 6B: Utilities Best Practices in a Changing Climate Environment

13:30 **Panel Discussion -** *The Grounding and Lightning Professionals will share Experiences and Practices from Across the Globe -*
Bill Carman, Bill Carman Consulting

Session 6D: Environmental Impacts on Vegetation Management

13:30 **Strategies for Ecological ROW Management with Satellite Analytics –** *Anthony Palizzi , LiveEO*

14:15 **Climate Ready Vegetation Management Programs in Transmission Rights of Way (ROW): Habitat Value and Ecological Return on Investment –** *Anand B Persad, ACRT*

Session 6E: Review on State-of-the-Art Cable Design and Components

13:30 **Cable Age as a Factor in Power System Reliability –** *Gerry Sheerin, Consultant*

15:00-15:45 Coffee Break

15:45-16:30 Closing Plenary

15:45 **Climate Change Adaptation: Key Takeaways and Looking towards the Future – John Williamson, Asim Halder** *CEATI*

16:15 **Closing Remarks – Ari Kelenson,** *CEATI*

17:30-19:00 Women in Power – Networking Reception