

2021

Grid of the Future


OCTOBER 17-20, 2021
Sunday, October 17, 2021

| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|---------------|---------------------------|---|--|--|--------------------|
| 7:00A - 5:00P | CIGRE - Registration | | | | Narragansett Lobby |
| 1:00P - 4:30P | NGN Tutorial | Solar+ Storage Site Tour, Cedar Rd - Attleboro, MA | Samer Arafa Justin woodard Tyler Krupa | One hour class from 1-1:45pm Safety Glasses, water, light snack (will be provided.) Leave hotel at 2pm and be back by 4:30pm | South County |
| 5:30P - 7:30P | CIGRE Sponsored Reception | Welcome Reception Sponsored by SIEMENS Energy | | Welcome Reception sponsored by SIEMENS Energy | Narragansett C |

Monday, October 18, 2021

| TIME | EVENT | | | | ROOM |
|----------------|---|---|---|---|---------------------------|
| 7:00A - 5:30P | CIGRE - Registration | | | | Narragansett Lobby |
| 7:00A - 7:45A | CIGRE - Breakfast Buffet Sponsored by Sediver | Breakfast Buffet | | Breakfast Sponsored by Sediver | Narragansett C |
| 7:00A - 7:45A | Women in Energy Breakfast | Women in Energy Breakfast | Carol Sedewitz (NationalGrid) | Breakfast Sponsored by Mitsubishi Electric Power Products | South County |
| 7:45A - 8:15A | CIGRE General Session | Welcome Address - (Chris Root) Keynote Address | Chris Kelly (NationalGrid) | | Narragansett A&B |
| 8:15A - 9:15A | CIGRE Panel Session | Moderator: John McDonald (GE) | David Lovelady (NationalGrid) Josh Castaguay (Green Mountain Power) | Controlling the Distribution Grid of the Future | Narragansett A&B |
| 9:15A - 9:30A | Morning Break | Morning Break | | Coffee break sponsored by Commonwealth Associates | Narragansett Pre-Function |
| 9:30A - 11:00A | CIGRE - Track 1 | Paper Session 1A - Moderator: Vipul Bhagat - National Grid | J. A. Wischkaemper, TAMU F. Stadtmueller, PG&E N. M. Skoff, Dominion B. Berry, Reactive Technologies | Distribution Technical Track | Bristol / Kent |
| | | | | Wildfire Prevention, Ground Protection and Fault Measurement Session | |
| | | | | <i>Wildfire Ignition from Latent, Undiscovered Distribution Faults - Early Detection Using Signature Recognition</i> J. A. Wischkaemper - Texas A&M University , B. D. Russell, C. L. Benner, K. Muthu-Manivannan | |
| | | | | <i>Ground Fault Neutralizer for Wildfire Mitigation in California</i> F. Stadtmueller - Pacific Gas & Electric Co. , S. Hayes | |
| | | | | <i>Ground Protection Methods for Transmission Lines using Segmented Static Wires</i> N. M. Skoff - Dominion Energy Virginia , R. E. Tuck, G. B. Alvarez, P. D. Vansant, M. J. Till | |
| | | | | <i>Fault Level Measurement Techniques in Power Systems</i> B. Berry - Reactive Technologies , D. Gheorghie | |

| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|----------------|-----------------|--|--|---|-------------------------|
| 9:30A - 11:00A | CIGRE - Track 2 | Paper Session 1B - Moderator: Gianni Figueroa - National Grid | Z.Jiang, University of TN Z.Jiang, University of TN T. Manna, Burns & McDonnell P. Mahadanaarachchi, AEP | System Analysis, Grid Control and Reliability Technical Track | Newport / Washington |
| | | | | Reactive Power Compensation, PV Generation and GICs Impacts Session | |
| | | | | <i>Reactive Power Compensation Analysis of the U.S. Eastern Interconnection with Increased Renewable Penetration</i> Z. Jiang - University of Tennessee , S. You, L. Zhu, Y. Liu, M. J. Till, X. Li, R. Liu, J. Han | |
| | | | | <i>Impacts of Photovoltaic Generation and Natural Gas-fired Generation on Large-scale Power Systems</i> Z. Jiang - University of Tennessee , S. You, L. Zhu, Y. Liu, M. J. Till, X. Li, R. Liu, J. Han | |
| | | | | <i>Reactive Power Compensation Considerations for Offshore AC Networks</i> T. Manna - Burns & McDonnell | |
| | | | | <i>Measuring Geomagnetically-Induced Currents in each Phase of an Auto Transformer Bank</i> P. Mahadanaarachchi - American Electric Power , L. Anderson | |
| 9:30A - 11:00A | CIGRE - Track 3 | Paper Session 1C - Moderator: Francesca Urcia - Natioinal Grid | E.Inbar, Prisma Photonics J. Lehmer, Idaho National Laboratory W. Edmondson, Mott MacDonald S. Ziegler, IMCORP | Advanced Technologies and Asset Management Technical Track | South County |
| | | | | Innovation with Cables and Dynamic Line Rating Session | |
| | | | | <i>Innovative Optical Fiber-based Monitoring of Overhead Power Transmisison Lines</i> E. Inbar - Prisma Photonics , A. Motil, E. Rowen, A. Ettliger, C. Xu, M. Fuchs | |
| | | | | <i>Computerized Wind Farm Generation Tie Line Infrastructure Footprint Routing and Subsequent Dynamic Line Rating</i> J. Lehmer - Idaho National Laboratory , T. Phillips, A. Abboud, J. Gentle | |
| | | | | <i>Export Cable Energization in Offshore Wind Farms</i> W. Edmondson - Mott MacDonald , G. Wu, D. F. Canon, R. Hariharan | |
| | | | | <i>Using Machine Learning and Deep Learning for Characterizing Partial Discharge in Underground Utility Cables for Predictive Maintenance Application</i> S. Ziegler - IMCORP , S. Shekhar | |
| 9:30A - 11:00A | CIGRE - Track 4 | Paper Session 1D - Moderator: Connor Skowyrza - National Grid | A.C. West, SUBNET S. R. Knudsen, KeyLogic Systems A. Bordine, Anterix B. W. Albright, Burns McDonnell | System Analysis, Grid Control and Reliability Technical Track | Providence I & IV |
| | | | | Data, Communications and Cyber Security Session | |
| | | | | <i>All in this Together: Integrating Data across Disciplines and Functions</i> A. C. West - SUBNET Solutions Pty Ltd | |
| | | | | <i>Prevent Cyber-attacks: Know Your Network</i> S. R. Knudsen - KeyLogic Systems, Inc. | |
| | | | | <i>Network of Networks: The Power of Collectively Adopting Private LTE to Modernize the U.S. Electric Grid</i> A. Bordine - Anterix | |
| | | | | <i>Public vs. Private Networks</i> B. W. Albright - Burns McDonnell | |

| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|-----------------|--------------------------------------|--|--|---|---------------------------|
| 9:30A - 11:00A | CIGRE - Track 5 | Paper Session 1E - Moderator: Sid Ashok - National Grid | D. Desmond, S&C Electric S. Pandey, Commonwealth Edison Company R. K. Skinner, Wildan Corp J. A. Wischkaemper, TAMU | Distribution Technical Track | Narragansett A&B |
| | | | | Distribution System Resilience Session | |
| | | | | <i>Distribution Automation in Residential Underground Laterals</i> D. Desmond - S&C Electric Company, R. Gaddis | |
| | | | | <i>Development of a Resilience Framework for Storm Hardening and Recovery</i> S. Pandey - Commonwealth Edison Company, S. Aguilar, S. Latinwo, D. Kushner, A. Vukojevic, E. A. Paaso, Y. El-Tiqani, A. Arab, A. Khodaei | |
| | | | | <i>Customer Choice: The Paradigm Shift and Future Potential of Customer Owned Distributed Energy Resources (DERs)</i> R. K. Skinner - Wildan Corp., E. Woychik, M. Martinez | |
| | | | | <i>Sympathetic Events Resulting from Capacitor Transients</i> J. A. Wischkaemper - Texas A&M University, B. D. Russell, K. Muthu-Manivannan | |
| | | | | | |
| 11:00A - 11:15A | Break / Transition | Break / Transition | | | |
| 11:15A - 12:30P | CIGRE - Sponsored Lunch | CIGRE - Sponsored Lunch | | | Narragansett C |
| 11:15A - 12:30P | CIGRE USNC Executive Committee Lunch | CIGRE USNC Executive Committee Lunch | Chris Root, CIGRE USNC President | | Providence II & III |
| 12:30P-12:45P | Break / Transition | Break / Transition | | | |
| 12:45P - 2:15P | CIGRE NGN Paper Competition | CIGRE NGN Paper Competition | | | Narragansett C |
| 2:15P - 2:30P | Afternoon Break | Afternoon Break | | Coffee break sponsored by IMCORP | Narragansett Pre-Function |
| 2:30P - 4:00P | CIGRE - Track 1 | Paper Session 2A - Moderator: Ozan Baskan - National Grid | G. Polizzi, Minsait ACE and F. Deng, NREL Y. Liu, Commonwealth Edison N. Gurung, Commonwealth Edison J. Philhower, Savant Power | Distribution Technical Track | Bristol / Kent |
| | | | | Microgrids and DERMS Session | |
| | | | | <i>Resilient Microgrids: Developing Community-scale Microgrids with High Solar Generation</i> G. Polizzi - Minsait ACS and F. Deng - National Renewable Energy Laboratory (NREL) | |
| | | | | <i>Photovoltaic Generation Estimation for DERMS Curtailment Analysis</i> Y. Liu - Commonwealth Edison Company, M. G. Hernandez, A. Vukojevic | |
| | | | | <i>Design and Development of a Sequence of Operation for Utility Microgrids</i> N. Gurung - Commonwealth Edison Company, R. Sharma, H. Chen, H. Zheng, O. Alizadeh | |
| | | | | <i>Harmonic Analysis of Residential Microgrid Operating ON/OFF Grid with Non-linear Loads</i> J. Philhower - Savant Power, A. Demeo, K. Page | |
| | | | | | |
| 2:30P - 4:00P | CIGRE - Track 2 | Paper Session 2B - Moderator: Nima Kalathil - National Grid | R. Zhang, S&C Electric S. Shekhar, MathWorks, Inc. M. Abdelmalak, University of Nevada Reno T. McGrail, Doble Engineering | Advanced Technologies and Asset Management Technical Track | Newport / Washington |
| | | | | Machine Learning and Artificial Intelligence Applications to the Grid Session | |
| | | | | <i>Artificial Intelligence Application in Grid Edge Asset Health Monitoring</i> R. Zhang - S&C Electric Company, D. Guinn, Q. Guo, V. Ostapchuk, W. Watts, Y. Sharon, M. Gao | |
| | | | | <i>Reinforced Learning Approach Based on Topology Reconfiguration to Enhance Operational Resilience against Hurricanes</i> M. Abdelmalak - University of Nevada Reno, S. Morash, M. Benidris, A. F. Snyder | |
| | | | | <i>Practical Machine Learning Applications</i> T. McGrail - Doble Engineering, T. Rhodes, I. Mitiche, F. Werner, P. Boreham | |
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| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|---------------|-----------------|--|--|---|---------------------------|
| 2:30P - 4:00P | CIGRE - Track 3 | Paper Session 2C - Moderator: Omar Muneeruddin - National Grid | A. G. Miles, University of Idaho A. Arab, University of Denver M. Khoshjahan, TAMU Z. Wu & A. V. Guerra, Commonwealth Edison | System Analysis, Grid Control and Reliability Technical Track | South County |
| | | | | Innovation in Electricity Markets Session | |
| | | | | <i>An Integrated Transactive Energy Market and Distribution Grid Analysis Platform</i> A. G. Miles - University of Idaho , M. J. Holman, A. A. Jillepalli, D. Conte de Leon, Y. Chakhchoukh, B. K. Johnson, H. L. Hess | |
| | | | | <i>Conceptual Design of a Consensus Mechanism for Renewable Energy Markets on Blockchain</i> A. Arab - University of Denver , A. Khodaei, M. Choobineh, H. Zheng, A. Vukojevic | |
| | | | | <i>Impacts of Weather-Related Outages on DER Participation in the Wholesale Market Energy and Ancillary Services</i> M. Khoshjahan - Texas A&M University , R. Baembitov, M. Kezunovic | |
| | | | | <i>Case Studies of Distribution Locational Marginal Pricing Methodology Based on Bronzeville Community Microgrid</i> Z. Wu & A. V. Guerra - Commonwealth Edison Company , J. Lam, W. Muneer, E. Ma, A. Lodder, V. Guo, S. Mortazavian, Y. Zhang | |
| 2:30P - 4:00P | CIGRE - Track 4 | Paper Session 2D - Moderator: Olivia Phillips - National Grid | S. Ashok, National Grid K. Deming, National Grid M. Nazir, Clemson University V. Powar, Clemson University | Advanced Technologies and Asset Management Technical Track | Providence I & IV |
| | | | | HVDC Applications Session | |
| | | | | <i>Novel Use Case of Robotic Dog Payloads for Asset Inspections at HVDC Site</i> S. Ashok - National Grid , J. Marcinkus, C. McCarthy | |
| | | | | <i>Considerations in Strategic Long-Term Transmission Asset Replacement: An HVDC Case Study</i> K. Deming - National Grid , M. Perben, S. Ashok | |
| | | | | <i>Hybrid Converter-station Transformer for Enhanced HVDC Robustness</i> M. Nazir - Clemson University , J. H. Enslin | |
| | | | | <i>Photovoltaics and Lithium-ion Battery based Sustainable Energy Infrastructure</i> V. Powar - Clemson University , P. Paniyil, R. Singh | |
| 2:30P - 4:00P | CIGRE - Track 5 | Paper Session 2E - Moderator: Sarah Roffo - National Grid | H. Lao, AEP Y. Lu, AEP J. Cordova, EPRI B. Enayati, National Grid | System Analysis, Grid Control and Reliability Technical Track | Narragansett A&B |
| | | | | Power System Model Update and Analysis Session | |
| | | | | <i>Simple Reformation of Conventional Power Flows to Enhance Resilient Power Grid Analysis</i> H. Lao - American Electric Power , P. Yan | |
| | | | | <i>A CIM-based Incremental Approach for Real-time System Model Update</i> Y. Lu - American Electric Power , X. Xu, F. Tu, A. Ali | |
| | | | | <i>Online Decision Support Framework for Power System Restoration by Use of Real-Time Simulation</i> J. Cordova - Electric Power Research Institute , H. Hooshyar, M. Patel, V. Singhvi | |
| | | | | <i>Introducing the IEEE PES Transmission Subcommittee</i> B. Enayati - National Grid , D. D. Sabin | |
| 4:00P - 4:15P | Afternoon Break | Afternoon Break | | | Narragansett Pre-Function |

| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|---------------|-----------------|---|---|---|----------------------|
| 4:15P - 5:45P | CIGRE - Track 1 | Paper Session 3A - Moderator: Mandy Olson - Burns & McDonnell | W. Fan, Commonwealth P. Pabst, Commonwealth A.Vukojevic, Commonwealth W.Fan, Commonwealth | Distribution Technical Track | Bristol / Kent |
| | | | | CVR Deployment Applications Session | |
| | | | | <i>Anomalous Voltage Data Detection: Utility Experience from Large Scale CVR Deployment</i> W. Fan - Commonwealth Edison Company , M. S. Hossan, A. Cook, S. A. Fard, E. A. Paaso, A. Khodaei | |
| | | | | <i>Investigating the Practical Bounds of the CVR Factor</i> P. Pabst - Commonwealth Edison Company , A. Khodaei, Z. Hosseini, S. Hossan, W. Fan, M. Mahoor | |
| | | | | <i>Benefits of Single-Phase Capacitor Switching in Conservation Voltage Reduction</i> A. Vukojevic - Commonwealth Edison Company , H. Zheng, K. Dsouza | |
| | | | | <i>Distribution System Monitoring for CVR Operation and Performance Evaluation: A Utility Experience</i> W. Fan - Commonwealth Edison Company , M. S. Hossan, L. Workman, A. Cook, P. Pabst, E. A. Paaso | |
| 4:15P - 5:45P | CIGRE - Track 2 | Paper Session 3B - Moderator: Jon Garrity - Tagup, Inc. | F. Yanikara, Quanta Technology C. Skowrya, National Grid L.Covert, Burns & McDonnell | System Analysis, Grid Control and Reliability Technical Track | Newport / Washington |
| | | | | Lessons in Sustainability Session | |
| | | | | <i>A Comprehensive Metrics-based Climate/Resilience Plan and Investment Strategy</i> F. Yanikara - Quanta Technology , E. Ntakou, S. Bahramirad, J. Schlegelmilch, K. Mahani, R. Masiello | |
| | | | | <i>The Importance of EVs and How to Sustainably Create Widespread Use</i> C. Skowrya - National Grid | |
| | | | | <i>Improving Grid Infrastructure Sustainability by BIM and Optioneering Design Approach</i> L. Covert - Burns & McDonnell , P. Somboonyanon | |
| 4:15P - 5:45P | CIGRE - Track 3 | Paper Session 3C - Moderator: Josh Snodgrass - POWER Engineers, Inc. | G. Katsh, National Grid H.Othman, Quanta Technology J.Caspary, Grid Strategies L.Cercere, Vermont Electric Power Co. | Advanced Technologies and Asset Management Technical Track | South County |
| | | | | Impact of Future Technological Innovations on Transmission Session | |
| | | | | <i>Impacts of Fleet Electrification on Grid Infrastructure</i> G. Katsh - National Grid , M. Cloud, T. Hill, M. Perben, H. Snowmoro, R. Wheeler, J. Wilke, C. Aimone, J. Hou, S. Patel, G. Rackliffe, T. Wischmeyer, M. Ziemann | |
| | | | | <i>Energy Storage Siting and Sizing Methodology to Unlock Transmission Transfer Capacity - A Case Study in the UK National Grid</i> H. Othman - Quanta Technology LLC , A. Thurumalla, X. Ding | |
| | | | | <i>Unlocking the Queue with Grid-Enhancing Technologies: Case Study of the Southwest Power Pool</i> J. Caspary - Grid Strategies , B. Tsuchida, J. Schneider, T. Bloch-Rubin, J. Marmillo, P. Ruiz | |
| | | | | <i>2021 Vermont Long-Range Transmission Plan</i> L. Cercere - Vermont Electric Power Company | |
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| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|----------------|--|--|---|---|-------------------|
| 4:15P - 5:45P | CIGRE - Track 4 | Paper Session 3D - Moderator: James Berger - POWER Engineers, Inc. | S.P. Morash, EnerNex R.Eskandarpour, Resilient Entanglement O. Baskan, National Grid S. Arafa, National Grid | Distribution Technical Track | Providence I & IV |
| | | | | Innovations in Electric Grid Analysis Session | |
| | | | | <i>Machine Learning in Distribution Management Systems as Forecasting</i> S. P. Morash - EnerNex , A. F. Snyder, M. Humayun, J. Schoene, Y. Naman | |
| | | | | <i>Experimental Quantum Computing to Solve Network DC Power Flow Problem</i> R. Eskandarpour - Resilient Entanglement , K. Ghosh, A. Khodaei, A. Paaso | |
| | | | | <i>Creating the Electric Distribution Management System that Enables the Clean Energy Transition</i> O. Baskan - National Grid , A. Grant, J. Larochelle <i>A Strategy to Modernizing the Electric Grid</i> S. Arafa - National Grid | |
| 4:15P - 5:45P | CIGRE - Track 5 | Paper Session 3E - Moderator: Mark McVey - Dominion Energy Virginia | D. A. Tarvin, Burns & McDonnell J. L. Lauletta, Exacter, Inc. S. Morovati, University of Tennessee | System Analysis, Grid Control and Reliability Technical Track | Narragansett A&B |
| | | | | Practical Applications of Analytics Session | |
| | | | | <i>Using Prescriptive Analytics to Optimize Electricity Distribution System Maintenance and Upgrades</i> D. A. Tarvin - Burns & McDonnell | |
| | | | | <i>Practical Analytic Applications for Grid Reliability and Resilience</i> J. L. Lauletta - Exacter, Inc. | |
| | | | | <i>Transient Stability Analysis Framework for Performance Evaluation of Microgrids with an Energy Storage System and a Synchronous Condenser</i> S. Morovati - The University of Tennessee , F. Katiraei, S. Chuangpishit | |
| 6:00P - 10:00P | CIGRE Welcome Reception/Dinner sponsored by NATIONAL GRID | | | Fleming's Prime Steakhouse, Omni Providence Hotel One West Exchange Street, Providence, RI Sponsored by National Grid | |

Tuesday, October 19, 2021

| TIME | EVENT | | | | ROOM NAME |
|----------------|-------------------------------------|--|---|---|---------------------------|
| 7:00A - 4:30p | CIGRE - Registration | | | | Narragansett Lobby |
| 7:00A - 7:45A | CIGRE - Breakfast Buffet | Breakfast Buffet | | | Narragansett C |
| 7:00A - 7:45A | NGN - Breakfast Buffet | CIGRE NGN Breakfast Speaker: | Natasha Deschne (NationalGrid) | | South County |
| 7:45A - 8:15A | CIGRE General Session | Keynote Address: Speaker: | Judith Judson (NationalGrid) | | Narragansett A&B |
| 8:15 - 8:30 A | NGN Paper Award Winner Announcement | NGN Vice Chair Paper Competition NGN Chair | | | |
| 8:30A - 9:30A | CIGRE Panel Session | Moderator: Chris Root (VELCO) | JP Knauss (National Grid) Aftab Khan (Eversource) | Grid MOD & Telecom network as part of an Electric Utility | Narragansett A&B |
| 9:30A - 9:45 A | Morning Break | | | Morning break sponsored by MPR Associates . | Narragansett Pre-Function |
| 9:45A - 11:15A | CIGRE - Track 1 | Paper Session 4A - Moderator: Theo Laughner - Lifescale Analytics | M. Kezunovic, TAMU K.Buffi, National Grid B. Curran, MPR Associates C. Malone, Dominion Energy | Distribution Technical Track | Bristol/Kent |
| | | | | BESS and Other Grid Modernization Initiatives Session | |
| | | | | <i>Harvesting the Nano-Grid Flexibility</i> M. Kezunovic - Texas A&M University , M. Khoshjahan, M. Soleimani | |
| | | | | <i>Volt/VAR Optimization and Interoperability with other Grid Modernization Initiatives</i> K. Buffi - National Grid | |
| | | | | <i>Designing Battery Energy Storage Systems for Reliability</i> B. Curran - MPR Associates, Inc. <i>Utilizing a BESS for Multi-Applications in a Distribution Grid</i> C. Malone - Dominion Energy Virginia , Y. Wang, G. J. Warchol, A. Johnson | |

| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|----------------|-----------------|--|---|---|-------------------------|
| 9:45A - 11:15A | CIGRE - Track 2 | Paper Session 4B - Moderator: Senay Berhane - S&C Electric Company | C. Bowen, Burns & McDonnell A. Pagnotta, Burns & McDonnell D.D. Sabin, Schneider Electric | System Analysis, Grid Control and Reliability Technical Track | Newport / Washington |
| | | | | Climate and Electrical Load Impacts Session | |
| | | | | <i>The Impact of Extreme Events on Electrical Substation Infrastructure in Coastal Areas</i> C. Bowen - Burns & McDonnell, C. Jergensen, P. Somboonyanon | |
| | | | | <i>Embracing Carbon Abatement in Concrete for the Construction of Electrical Utility Networks</i> A. Pagnotta - Burns & McDonnell, P. Somboonyanon | |
| | | | | <i>Automating Analytics of Electrical Load Impact due to Voltage Sags</i> D. D. Sabin - Schneider Electric, J. A. Bickel | |
| | | | | | |
| 9:45A - 11:15A | CIGRE -Track 3 | Paper Session 4C - Moderator: Steven Judd - ISO New England, Inc. | E. P.Casale, S&C Electric H. Hooshyar, EPRI T. Laughner, Lifescale Analytics T. Phillips, Idaho National Laboratory | Advanced Technologies and Asset Management Technical Track | South County |
| | | | | Power System Technical Performance Session | |
| | | | | <i>Benefits of Low-Energy Interruption and Low-Energy Testing Technology Applied at Transmission Circuits with Falling Inertia</i> E. P. Casale - S&C Electric Company, M. G. Ennis | |
| | | | | <i>PMU Limitations in Monitoring Fast Dynamics in Low Inertia Systems</i> , H. Hooshyar - Electric Power Research Institute (EPRI) A. Haddadi, E. Farantatos, M. Patel | |
| | | | | <i>High-Density Distributed Sensor Network for Monitoring Grid Events</i> T. Laughner - Lifescale Analytics, R. King, B. Marshall, C. Sloop, J. Wellinghoff | |
| | | | | <i>Forecasting Dynamic Line Rating with Spatial Variation Considerations</i> T. Phillips - Idaho National Laboratory, A. Abboud, B. Starks, J. Lehmer, J. Gentle | |
| 9:45A - 11:15A | CIGRE -Track 4 | Paper Session 4D - Moderator: Travis Heintzleman - Burns McDonnell | R. Hunt, Quanta Technology B. Wang, Virginia Polytechnic M. Adhikari, Rensselaer Polytechnic S.A.Dorado-Rojas,Rensselaer Polytechnic | System Analysis, Grid Control and Reliability Technical Track | Providence I & IV |
| | | | | Protection and Automation Session <i>What is Sustainable Design?</i> R. Hunt - Quanta Technology, E. Udren | |
| | | | | <i>Hardware-in-the-loop Testing of Overcurrent Protection in a Substation Power System with PV Generation</i> B. Wang - Virginia Polytechnic Institute and State University, R. Liu, G. Alvarez, M. Till | |
| | | | | <i>Real-Time Controller Hardware-in-the-Loop (RT CHIL) Analysis of Ground Fault Overvoltages (GFOVs) in Inverter-based Distributed Energy Resources (DERs)</i> P. M. Adhikari - Rensselaer Polytechnic Institute, L. Vanfretti, M. Ruppert, M. Ropp | |
| | | | | <i>Transformer Differential Protection Studies for Dominion Energy's Blackstart Operations</i> S. A. Dorado-Rojas - Rensselaer Polytechnic Institute, X. Li, R. Liu, M. J. Till | |
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| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|-----------------|---------------------|---|--|---|---------------------------|
| 9:45A - 11:15A | CIGRE - Track 5 | Paper Session 4E - Moderator: David Roop, Mitsubishi Electric Power Products, Inc. | A.A. Ademola, Dominion T. McGrail, Doble Engineering R. Thaikkat, Tagup, Inc. X.Wu, AEP | Advanced Technologies and Asset Management Technical Track | Narragansett A&B |
| | | | | Advancements in Power Transformers and Circuit Breakers Session | |
| | | | | <i>Comparative Study of the Reactive Power Consumption of a Dominion Energy Virginia Autotransformer due to Geomagnetically-induced Current</i> A. A. Ademola - Dominion Energy Virginia, X. Li, D. Yang, M. J. Till | |
| | | | | <i>Lessons from Action Planning in Power Transformer Monitoring</i> T. McGrail - Doble Engineering, J. Beardsall, T. Salmon, S. Rhoads, P. Boreham | |
| | | | | <i>Using Machine Learning to Predict Ratio Transformer Failure</i> R. Thaikkat - Tagup, Inc., V. Dechiaro, J. Garrity, S. McCormick, R. Polera, A. MacMullen | |
| | | | | <i>Surge Arrester Separation Distance Considerations for High-Voltage Substation Circuit Breakers</i> X. Wu - American Electric Power, A. Gaunce, R. Wellman, T. Momme, K. Posey | |
| | | | | | |
| 11:15A - 11:30A | Break / Transition | Break / Transition | | | |
| 11:30A - 12:45P | CIGRE - Lunch | USNC Awards to be presented | | CIGRE USNC Awards to be presented during lunch - 12:00 pm. | Narragansett C |
| 12:45P - 1:00P | Break / Transition | Break / Transition | | | |
| 1:00P - 2:00P | CIGRE Panel Session | Moderator: Amanda Olson (Burns & McDonnell) | Dr. Danielle Merfeld (GE) Bill Chiu (Sothern Cali. Edison) | Clean Energy Goals & Affordable Pathways (Net Zero goals) | Narragansett A&B |
| 2:00P - 2:15P | Afternoon Break | Afternoon Break | | | Narragansett Pre-Function |
| 2:15P - 3:45P | CIGRE - Track 1 | Paper Session 5A - Moderator: Edgar Casale - S&C Electric Company | G. Wang, Quanta Technology S.L. Judd, ISO New England D.Yung, National Grid | System Analysis, Grid Control and Reliability Technical Track | Bristol/Kent |
| | | | | Power System Analysis and Development Session | |
| | | | | <i>Hurdles in Renewable Integration - Some Practical Considerations</i> G. Wang - Quanta Technology, H. Chao, F. Wang | |
| | | | | <i>Stochastic Analysis of Wind, Solar, and Load across New England</i> S. L. Judd - ISO New England, Inc., C. Hayes | |
| | | | | <i>The Asset Management Vacation</i> D. Yung - National Grid | |
| | | | | | |
| 2:15P - 3:45P | CIGRE - Track 2 | Paper Session 5B - Moderator: Logan Lillis - Burns & McDonnell | S.Berhane, S&C Electric S.Patel, Hitachi ABB Power Grids W.Nation, Commonwealth Edison N.Bhusal, University of Nevada Reno | Distribution Technical Track | Newport / Washington |
| | | | | Electric Vehicle Impacts and Hosting Capacity Session | |
| | | | | <i>Impacts of High EV Penetration on Distribution Networks and its Mitigation: A Study Framework</i> S. Berhane - S&C Electric Company, Y. Kenaranqui, F. Harirchi | |
| | | | | <i>Sensitivity Analysis of the Fleet Charging Impact on Feeder Load</i> S. Patel - Hitachi ABB Power Grids, M. Cloud, T. Hill, G. Katsh, M. Perben, H. Snowmoro, R. Wheeler, J. Wilke, C. Aimone, J. Hou, G. Rackliffe, T. Wischmeyer, M. Ziemann | |
| | | | | <i>Preparing the Grid for Electric Vehicle Charger Installations Serving Multi-Unit Dwellings</i> W. Nation - Commonwealth Edison Company, S. Aguilar, O. Ogunnubi, M. Lelic, R. Alkan | |
| | | | | <i>Hosting Capacity Approach Implications</i> N. Bhusal - University of Nevada Reno, A. Sadikovic, M. Ben-Idris | |
| | | | | | |
| 3:45P - 4:00P | Afternoon Break | Afternoon Break | | | Narragansett Pre-Function |

| TIME | EVENT | EVENT TITLE | Event Speaker[s] | Description | ROOM NAME |
|---------------|---|---|--|--|------------------|
| 4:00P -5:00P | CIGRE Panel Session | Moderator : Amin Khodaei (University of Denver) | Darcy Immerman (AECOM) Aleksi Paaso (ComEd) | Handing the Grid to a Super Computer (Big Data and Artificial Intelligence and Autonomy Grid Operation) | Narragansett A&B |
| 5:30P - 7:30P | NGN Sponsored Dinner (Invitation only) | | | Sponsored by Burns & McDonnell Sarto Restaurant Providence | |

Wednesday, October 20, 2021

| TIME | EVENT | | | | ROOM |
|-------------------|--|--|---|---|---|
| 7:00 am - 8:00 am | No Breakfast - Donuts and coffee provided | | | | Narragansett Pre-Function |
| 8:00A - 12:00P | 8:00am - 9:00am Classroom Tutorial 9:00am - 9:30am Break/Transit to the station (Boxed lunch to go) 9:30am - 11:45am Visiting Substation 11:45pm - 12:00pm Returning to hotel | Natioanl Grid SPOT Robot Tutorial with HVDC Use-case, Demo and South St. Substation Tour | Presenter: Sid Ashok, Dean Berlin | EH Rated safety boot, Cotton Clothing are required (Participant). Hard hat and safety glasses will be provided. | Bristol/Kent |
| 8:00A - 12:00A | Leave Hotel at 8:00am. Arrive Hotel at 12:00am | IEC 61850 Tutorial & Lab | Brian Degner, Laura Dembitzki, Paul Robinson, Al Moniz | | Meet at pre-function area before loading on bus |