

# Conference Programme - 14 June 2018



WEDNESDAY, 20 JUNE 2018	
12.00pm	AGM
AUCKLAND 3 & 4	
1.30pm	<b>Bob Taylor</b> EEA President
1.45pm	<b>Olivia Carpenter, Ricardo Energy &amp; Environment (IET UK)</b> The cutting edge of the UK Power Sector: making innovation happen
2.30pm	<b>Shay Bahramirad, ComEd, (IEEE PES, US)</b> Utility of the Future: The Foundation of Smart Cities
3.15pm	AFTERNOON TEA

	AUCKLAND 1	AUCKLAND 2	AUCKLAND 3	AUCKLAND 4
	<b>NOVEL APPROACHES TO TRADITIONAL ASSETS</b>	<b>LESSONS LEARNT IN HYDROPOWER</b>	<b>LV NETWORK - ADAPTING TO DISTRIBUTED GENERATION</b>	<b>ASSET MANAGEMENT - FORECASTING, CRITICALITY &amp; RISK</b>
3.45pm	<b>Distribution Overhead HV Switchgear Maintenance and Replacement Learning's</b> Leo Liu, Counties Power	<b>Six Stations, One Set-point - Teviot Hydro Scheme Automatic Optimal Dispatch</b> Pete McClean, Pioneer Energy & Jamie Walton, Beca Ltd	<b>Benefits of using voltage regulating distribution transformers for grid integration of renewables – Lessons learned from first installations in Australia and New Zealand</b> Dr. Thomas Smolka, Reinhausen Australia	<b>Defects Risk Analysis - Visibility for Engagement</b> Karen Frew, Powerco
4.15pm	<b>Finalised Surface Foundations for Emergency Poles</b> Wal Marshall, LineTech Consulting & Bradley Singh, Wellington Electricity Lines Ltd	<b>Lessons learned from the Manapouri station ramp-down event</b> Chris Ewers, Meridian Energy	<b>Study of Voltage Profile in a Low Voltage Distribution Network</b> Parash Acharya, EPECentre, University of Canterbury	<b>Experience in Asset Management Improvement based on ISO 55001 Principles</b> Dr. Robin Platfoot, Covaris Pty Ltd & Ying Wang, Consulink
4.45pm	<b>Insulating Oil - Electrical Considerations</b> Chian Yaw Toh, Nynas Pte Ltd/Nynas AB, Singapore	<b>Bricks and Mortar, Fire and Water – Protecting Power Transformers at Meridian Energy's Ohau A Power Station</b> Dr. Yanosh Irani, Meridian Energy	<b>Predicting voltage variations with new prosumers in low voltage networks</b> Ashish Gupta, University of Melbourne	<b>Asset renewal of a distribution network – the need for increased investment</b> Michael O'Brien, Powerco
5.15pm	<b>Lasting the Distance when the Lights Go Out</b> Matthew Hall & Bevan Cooper, Tesla Consultants	<b>Electricity Infrastructure Resilience: a structural engineering perspective</b> Chris Treleaven, AECOM	<b>Impact of inverter energy systems on protection of LV networks</b> Ryan van Herel & Dr. Bill Heffernan, EPECentre, University of Canterbury	<b>Prioritising Expenditure on the Basis of Asset Criticality</b> Eric Wolters, Independent Consultant
5.45 - 7.00pm	TRADE EXHIBITION OPENING SOCIAL HOUR			

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THURSDAY, 21 JUNE 2018				
DAY 2	AUCKLAND 1	AUCKLAND 2	AUCKLAND 3	AUCKLAND 4
	<b>TRANSFORMER FLEET MONITORING</b>	<b>ASSET CONDITION MONITORING - DATA PROCESSING</b>	<b>RESILIENCE</b>	<b>FUTURE POSSIBILITIES - TRENDS IN EVOLVING TECHNOLOGY</b>
8:30am	<b>A novel approach to hydrogen sensing in distribution transformers</b> Michael Davies, Robinson Research Institute	<b>Data Visualisation and Analytics - Driving the Reliability Improvement of High Voltage Assets</b> Kevin Chong & Stuart Nell, Rio Tinto	<b>Major Event Days: Impact on Reliability</b> Greg Schellenberg, S&C Electric Company	<b>Wellington Electricity's Emerging Technology Roadmap</b> Lingsong Zheng, Wellington Electricity
9am	<b>Real time monitoring of moisture content in transformer oil</b> Dr. Bhaba Das, ETEL Transformers Ltd & Dr. Sebastiampillai Raymond, Callaghan Innovation	<b>Using Data Analytics to improve electricity grid resilience – Machine Learning for fluid leak detection in underground transmission cables</b> Ravi Kiran, ABB Australia Pty Ltd	<b>How does one assess and quantify resilience measures for distribution networks?</b> Prof. Nirmal Nair, University of Auckland	<b>Electricity Distribution Network Transformation Roadmap</b> Dr. Allan Miller, Allan Miller Consulting Ltd
9:30am	<b>LV Distribution Transformer Monitoring as a Strategic Tool for a Changing Industry</b> Phillip Hogg, TransNet NZ Ltd	<b>Prioritising Predictive Maintenance Work Using Machine Learning</b> Mark Mitchell & Irvin Chew, Transpower NZ Ltd	<b>Cyclone Debbie and Cook –Testing Horizon Networks' Resilience</b> Gurjeet Singh Malhi, Horizon Networks	<b>Asset criticality modelling in electricity distribution networks</b> Paul Mitchell & Simon Todd, Commerce Commission
10am	<b>Improving Situational, and Operational Awareness, While Reducing Risk on Substation Transformers</b> Brian Sparling, Dynamic Ratings & Tara-Lee MacArthur, Ergon Energy Network	<b>Assessing Grid Conditions to Enable Predictive Maintenance</b> Bill McConaha, Exacter Inc, USA	<b>Assessing Potential Damage from a Major Earthquake</b> Michael Glass, Wellington Electricity	<b>The Vision for An Integrated Electrical Grid and Distributed Energy Resources</b> Young Ngo, Survalent Technology Corp
10:30am	<b>MORNING TEA</b>			
	<b>AUCKLAND 3 &amp; 4</b>			
	<b>KEYNOTE SPEAKERS</b>			
11am	<b>Rob Stephen, Eskom, South Africa (CIGRE)</b> Future Grid Challenges and Solutions			
11:45am	<b>Asheley Johnston, Chief Solutions Director, Asia Pacific, Landis+Gyr</b> Energy Systems of the Future - Grid Edge Technologies			
12:30pm	<b>LUNCH</b>			
	<b>WORKFORCE DEVELOPMENT</b>	<b>CONSUMER BEHAVIOUR</b>	<b>ADVANCES IN HEALTH &amp; SAFETY PRACTICE</b>	<b>PANEL SESSION 1</b>
2pm	<b>Virtual reality training and competency assessment – The SA Power Networks trial</b> Brad Rooney, Mitton Electronet	<b>Smart Meter Data Insights - Segmenting and Profiling Loads</b> Dr. Daniel Gnoth & Irvin Chew, Powerco Ltd	<b>'Safety in Design' at Orion</b> Alisdair Reid, Orion NZ Ltd	<b>CIGRE Solutions to Address International Emerging Impacts on Power &amp; Energy Systems</b>
2:30pm	<b>Developments in Electricity Distribution Worker Education and Training</b> Steven Corbitt & Michael Whaley, Powerco Ltd	<b>Agile consumer development in the energy industry: lessons from NZ's first P2P electricity retailer, LightningLab Electric accelerator and Trade Me</b> Martin White, Emhtrade	<b>Designing for operator safety in distribution networks - Arc flash hazards and mitigation in compact secondary substations</b> Nishant Patel & Gilbert Zielemann, ABB Ltd	Panel Convenors: <b>Waqar Qureshi</b> , CIGRE Secretary/ Horizon Networks & <b>Doug Ray</b> , CIGRE NZ Chair/Vector Ltd
3:00pm	<b>Meridian Waitaki unit 3 refurbishment, resourcing strategy successes and lessons learnt</b> Chris Baldwin, Meridian Energy	<b>The sharing economy enhancing, not displacing, electricity networks - experiences of an electricity retail platform delivering transactive grid services</b> Jamie Silk, Emhtrade	<b>Reinventing the Safety Alert System</b> Rob Douglas, Energyedge Ltd	<b>Panellists:</b> <b>Rob Stephen</b> , CIGRE President/Eskom <b>Dr. Nirmal Nair</b> , University of Auckland <b>Ralf Huebner</b> , Vector Ltd <b>Rebecca Shaw</b> , AECOM <b>Helen Yorke</b> , BECA Ltd



DAY 2 CONTINUED				
THURSDAY, 21 JUNE 2018				
3:30pm	AFTERNOON TEA			
DAY 2	AUCKLAND 1	AUCKLAND 2	AUCKLAND 3	AUCKLAND 4
	<b>BIG DATA FOR BETTER DESIGN &amp; OPERATION STRATEGIES</b>	<b>CABLE DIAGNOSTICS</b>	<b>VALUING RELIABILITY &amp; SECURITY</b>	<b>PANEL SESSION 2</b>
4pm	<b>Modelling for the masses – a transformational approach to automated T&amp;D models using LiDAR.</b> Stacie Grassano & Jeff Filip, Intelfuse Pty Ltd	<b>Investigating Travelling wave Fault Location Techniques for Distribution Assets</b> Safa Al-Sachit, University of Auckland	<b>Cost Benefit Analysis in Electricity Distribution</b> Bernie Coster, Powerco	<b>Electrifying Transportation - Opportunities and Challenges for LV Networks</b>  Panel Convenor: <b>Russell Watson</b> , Northpower/ EEA EV Charging Advisory Group  Panellists:  <b>Eric Pellicer</b> , Powerco <b>Shaneel Singh</b> , EA Networks <b>Peter Morfee</b> , WorkSafe NZ
4.30pm	<b>AutoCAD Electrical Producing Smart Drawings for South Australia Power Networks (SAPN)</b> Dean Prattley, Mitton Electronet	<b>Electricity Cable Fleet Management Improvements</b> Bradley Singh, Wellington Electricity	<b>Transmission Asset Investment Approach and Methodology for Waikato and Upper North Island (WUNI)</b> Si Kouk Ting & Julia Ting, Transpower NZ Ltd	
5pm	<b>BIM: Modernising Digital Delivery for the Power Sector</b> Glenn Jowett, Beca Ltd	<b>Considerations for choosing partial discharge measurement equipment for medium voltage cables</b> André Cuppen, Unison Networks Ltd	<b>How to Conduct a Critical Spares review</b> Eric Wolters, Independent Consultant	
5.30 - 6.30pm	TRADE EXHIBITION SOCIAL HOUR			
7.30pm	PRE-DINNER DRINKS			
8pm	CONFERENCE DINNER			

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FRIDAY, 22 JUNE 2018				
DAY 3	AUCKLAND 1	AUCKLAND 2	AUCKLAND 3	AUCKLAND 4
	<b>SMARTER UTILISATION - GETTING MORE OUT OF OUR ASSETS</b>	<b>GENERATION - DRY YEAR RISK &amp; FREQUENCY MANAGEMENT</b>	<b>EARTHING</b>	<b>SECONDARY SYSTEMS</b>
8.30AM	<b>Usage of Weather Data for Dynamic Thermal Line Rating and Power Flow Analysis for Power System Planning and Operation</b> Arif Ahmed, Robinson Research Institute	<b>Electricity options for the future</b> Bryan Leyland, Leyland Consultants	<b>Earthing Safety in Design - What to be aware of when modifying a potentially hazardous substation</b> Torry Hanson, Mitton Electronet (APEX 2016 Winner)	<b>Smart Strategies for Whole of Life Support for Primary and Secondary Electronic Assets</b> Stephen Chibnall, Loop Technologies
9.00am	<b>Adapting Our Legacy Assets for the Future</b> Gerk Chen, Transpower NZ Ltd	<b>Peaking Requirements for a 90% renewable system in New Zealand</b> Luke Schwartzfeger, EPECentre, University of Canterbury	<b>Ground Fault Neutralisers - How Well Do They Really Work?</b> Rodger Griffiths & Cosmin Cosma, Westpower	<b>Grid Technology and the Hawke's Bay</b> Kerry Jenkins, Beca Ltd
9.30am	<b>Enabling Data Rich Distribution Networks</b> Nick Pappapetros, Ergon Energy (EECON 2017 Presentation winner)	<b>Impact of Dynamic Response of Different Generation Technologies on Frequency Control Ancillary Services (FCAS) Market</b> Ragini Patel, RMIT University, Melbourne (EECON 2017 Presentation winner)	<b>An Improved Distribution Earthing and Lightning Protection Design Process for High Resistivity Soils</b> Dr. Rodney Urban, Beca Ltd & Nick Wyatt, Aurora Energy Ltd	<b>Why system-based testing should be part of every commissioning</b> Maik Ufferhardt, OMICRON Electronics
10.00am	<b>Development of the Auckland Reactive Power Controller</b> Dr. Victor Lo, Jacobs	<b>Lithium-Ion BESS Connected to MV Networks: Developing Interconnection Guidelines</b> Adithya Murthy & Nasser Usman Farrooqi, University of Auckland	<b>The 400-Site Challenge: Achieving Electrical Safety on Metal Pipelines</b> Terrence Ibasco, Beca Ltd & Kelvin Stewart, First Gas Ltd	<b>A new protection concept for H-bridge connected capacitor banks</b> Darren O'Neill & Michael Dalzell, Transpower NZ Ltd
10:30am	<b>MORNING TEA</b>			
	<b>AUCKLAND 3 &amp; 4</b>			
11.00am	<b>Alison Andrew, CEO Transpower NZ Ltd</b> Transpower's view of energy futures			
11.45am	<b>Neal Barclay, CEO Meridian Energy</b> Our 100% Renewable Energy Challenge			
12.30pm	<b>LUNCH</b>			
	<b>AUCKLAND 3 &amp; 4</b>			
	<b>PANEL SESSION</b>			
2pm	<b>Exponentials 2.0 - What's changing, how fast, and what does it mean?</b>  Panel Convenor: <b>Peter Armstrong</b> , GM, Mitton Electronet <b>Shay Bahramirad</b> , IEEE (PES) <b>Olivia Carpenter</b> , IET (UK) <b>Rob Stephen</b> , CIGRE <b>Asheley Johnston</b> , Landis + Gyr <b>Alison Andrew</b> , Transpower			
3:30pm	<b>BEST PAPER AWARD - HELD IN AUCKLAND 3&amp;4</b>			
4pm	<b>CLOSE OF CONFERENCE - HELD IN AUCKLAND 3&amp;4</b>			