

Conference Programme



TUESDAY, 25 JUNE 2019	
12.00pm	AGM - AUCKLAND 1
AUCKLAND 3 & 4	
1.30pm	EEA President Welcome and Opening Remarks
1.40pm	Hon. Dr Megan Woods, Minister of Energy & Resources
2.00pm	Dr. David Prentice Chair, Interim Climate Change Committee (ICCC) Update from Interim Climate Change Committee
2.35pm	Dr. Damir Novosel President, Quanta Technology IEEE, (PES) Issues and Solutions for Evolving Energy Industry
3.15pm	AFTERNOON TEA

	AUCKLAND 1	AUCKLAND 2	AUCKLAND 3	AUCKLAND 4
	SAFETY IN DESIGN	GENERATION MAINTENANCE STRATEGIES	ASSET ASSESSMENT	FUTURE ENERGY OPTIONS
3.45pm	MOSS, Modular Switchroom Solutions - The ODID rollout Brad Rooney, Mitton Electronet Ltd	Millennial engineering for a Generation X asset: Tekapo B unplanned generator rewind Campbell Hammond, Genesis Energy	How to properly assess NDT techniques for overhead line inspections Nathan Spencer, Revo Group Pty Ltd	Lessons from Australia – Understanding the Australian renewables boom and what it means for new generation development in New Zealand Brad Henderson, Mitton Electronet
4.15pm	Suggested Improvements to Electrical Distribution Design Practices in New Zealand Garth Brown, AECOM	Replace and Renew, two projects to keep Ravensdown connected and the turbine running Niall Smith, Beca Ltd	Big Things in Small Packages – High Voltage Stator Testing Andrew Berry, University of Canterbury	There is potential for pumped hydro energy storage in New Zealand Dr. Dougal McQueen, EPECentre, University of Canterbury
4.45pm	Delivering Operational Excellence through Integrated Health and Safety Approach – Nirvana or Necessity? Jason Franklin & Mike Boyle, PowerNet Ltd	Kawerau Generator Transformer T1 Failure and Recovery Darryl Yorke & Toby Gresham, Edison Consulting Group Ltd	1970 vs 2019, hand drawn vs laser scanned. A significant update to Meridians HVODS drawings Luke Reisima, Meridian Energy Ltd	Using Surplus Electricity to produce Green Hydrogen Anastasiya Verbytska, University of Canterbury
5.15pm	Kinleith Cable Upgrade – Approaching Safety in Design and Risk post the Penrose Cable Incident David Lowe & Katherine Doerr, Edison Consulting Ltd	Chip fryer defeats Batman: how to back-liven a generator without ferroresonant disaster Dr. Rowan Sinton & Julien Arts, Meridian Energy Ltd	Arc Fault Containment – Legacy versus modern switchgear Kristian Jensen, WSP-Opus	Offshore Wind for New Zealand Chiraag Ishwar, University of Canterbury
5.45 - 7.00pm	TRADE EXHIBITION OPENING SOCIAL HOUR			

Conference Programme



WEDNESDAY, 26 JUNE 2019				
DAY 2	AUCKLAND 1	AUCKLAND 2	AUCKLAND 3	AUCKLAND 4
	MANAGING RISK AND RESILIENCE	ELECTRIC VEHICLES	WHAT DOES DATA SAY	IMPACT OF NEW GENERATION TECHNOLOGY
8:30am	Building resilience for our Port Township Phil Bunnage & Shaun Allan, Orion NZ Ltd	Electric Vehicle Charger Hosting Capacity Dr. Allan Miller, Allan Miller Consulting Ltd	Phase Identification in Low Voltage Distribution Network using Voltage Data from Smart Meters Anne Midjah De Jesus, WEL Networks	Forecasting of PV generation using AI methods for future peer-to-peer energy services Sainbold Saranchimeg, University of Auckland
9am	Efficient Distribution Network Recovery following Natural Disasters: New Zealand Case Studies Samad Shirzadi, University of Auckland	Electric Vehicle Charging on WEL Networks' distribution network Dr. Graeme Ansell, Ansell Consulting Ltd	Network Performance and Data Analytics Visualisation for Power Distribution Utilities Dr. Diwakar Bhujel & Suman Poudel, Waipa Networks Ltd	Defining Smart Grid Architecture Model options for the evolving energy industry Elaine Meskhi & Ana Garcia, EA Technology
9.30am	Resilience v's Reliability, can making the right long and short term decision about your assets, deliver the perfect balance? Rick Van Driel, PowerPlan Ltd	Design and Development of the Powertrain Elements in a Formula SAE Electric Race Car Thomas Galbraith, University of Canterbury	Machine Learning and Data Science in the Electricity Industry Patrick Coombe, Mitton Electronet Ltd	Potential Impact of Consumer Technologies on Distribution Networks: With a particular focus on Electric Vehicles Luqman Sahimi & Dr. Waqar Qureshi, Horizon
10am	Network Component Modelling for Blackstart Planned Islanding Duncan Maina, University of Auckland	TXpert: Digital Distribution Transformer for Electric Vehicle Charging Infrastructure Dr. Bhaba Das, ABB Ltd	On-line Partial Discharge measurements on Cable Systems: results interpretation and evaluation for asset management Luca Garagnani, Machinemonitor	Planning for an efficient EV charging network Glenn Inkster, TransNet NZ Ltd
10.30am	MORNING TEA			
	SYSTEMS OPERATION	SUPPORT SYSTEMS	DISTRIBUTED GENERATION	PANEL SESSION
11am	Battery storage systems for primary frequency control in New Zealand Gareth Robinson, Transpower NZ Ltd	Efficient ways of integrating solar roof PV – an economical, technical and regulatory comparison of VRDT applications Armin Vielhauer, Maschinenfabrik Reinhausen, Germany	Advanced Distribution Management Systems: The Foundation of Distribution System Operations Radovoj Sadzakov, Schneider Electric	CIGRE International Developments - Cables, Joints and Terminations; Electricity Markets and Emerging Technologies Convenors: Doug Ray, CIGRE Chair & Waqar Qureshi, CIGRE NZ Secretary
11.30am	The Evolution of Orion's Mobile Generation Fleet Simon Milmine & Peter Allen, Orion NZ Ltd	Transpower's approach to preparing for a possible BIM future Catherine Ross, Transpower NZ Ltd & Glenn Jowett, Beca Ltd	A reliability-oriented cost optimization approach for long-term capacity planning of a multiple energy carrier micro-grid Soheil Mohseni, Victoria University of Wellington	Moderator: Rebecca Marx, CIGRE Membership Manager
12.00pm	H2, Dry Winter and the next best alternative Andrew Renton, Transpower NZ Ltd	The Rise of Intelligent Residential Energy Storage & Management on Australia's Electricity Network Michael Erskine, GHD Pty Ltd	Impact of Small-Scale Distributed Generation on a Rural 11kV Feeder Dr. Allan Miller, Allan Miller Consulting Ltd & Nick Patrick, Marlborough Lines Ltd	
12.30pm	LUNCH			

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DAY 2 CONTINUED				
WEDNESDAY, 26 JUNE 2019				
AUCKLAND 3 & 4				
KEYNOTE SPEAKERS				
2.00pm	Vic Crone, Chief Executive Callaghan Innovation Innovation: Survive or Thrive?			
2.45pm	Peter Brown, General Manager PSC New Zealand The future is already here!			
3:30pm	AFTERNOON TEA			
DAY 2	AUCKLAND 1	AUCKLAND 2	AUCKLAND 3	AUCKLAND 4
	APPLICATION OF NEW TECHNOLOGIES	SYSTEMS OPERATION	MAINTAINING SUPPLY	PANEL SESSION
4pm	Putting the High in High Voltage: UAVs for Live Line Inspection Robert Hockey, University of Canterbury	IEC61850 Fast Bus Blocking Schemes in Small Distribution Networks Nathan Rich, Mitton Electronet Ltd	Analysis of a 11kV downed conductor fault – A Case Study Stephen Chiu & Andrew Eaton, Powerco Ltd	Low Voltage Works Management Convenor: Graeme Johnson, Chair of Safety Standards and Procedures Group
4.30pm	Advanced Technologies in Vegetation Management Sourabh Sakhare, Aerial Surveys Ltd	Technology Choices for an Evolving Power System Dr. Radnya Mukhedkar, EPECentre, University of Canterbury	Improving Reliability for Regional Communities - Te Kaha Microgrid Dr. Waqar Qureshi & Johnathon Green, Horizon Networks Ltd	<u>Panellists:</u> Bob Taylor, NCLW Chair Hayley Head, Orion Richard Kingsford, WEL Networks
5pm	Faster, stronger- steel, the future Vineeth Isidore, Delta Utility Services <i>(APEX 2018 Best Presentation)</i>	Project Paho - Next Generation SCADA and IoT for Utilities Sam Hadley-Jones & Ryan Aspden, Powerco Ltd	Transpower Application for Automatic Control of Reactive Equipment Using SCADA in the Upper North Island (UNIRPC) Duncan Buchanan & Richard Sherry, Transpower NZ Ltd	
5.30 - 6.30pm	TRADE EXHIBITION SOCIAL HOUR			
7.30pm	PRE-DINNER DRINKS			
8pm	CONFERENCE DINNER			

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THURSDAY, 27 JUNE 2019				
DAY 3	AUCKLAND 1	AUCKLAND 2	AUCKLAND 3	AUCKLAND 4
	PLANNING YOUR NETWORK	ASSET MANAGEMENT ISO 55001	APPLYING NEW TECHNOLOGY	STRATEGIC PLANNING
8.30AM	An evidence-based approach to determining an LV Management Strategy that best accommodates Distributed Energy Resource uptake Elaine Meskhi & Martin Hunt, EA Technology	ISO55001 Asset Management System - One Year On Dr. Jules Congalton, Unison Networks	A novel, cost effective sensor system for measuring oil quality in distribution transformers Mike Davies, Robinson Research Institute	The Network Transformation Roadmap Dr. Allan Miller, Allan Miller Consulting Ltd
9.00am	Planning, Protection and Operational Challenges faced in Connecting a Remote Solar Farm in mid-west Queensland Mathew Holden, Energy Queensland (EECON Cresswell Winner)	Assessing and then Establishing the Approach to ISO 55001 Alignment Dr. Robin Platfoot, Covaris	Integration of Remote Offshore Energy with High Voltage Direct Current (HVDC) Stephen Butler, PSC NZ Ltd	Near Real Time Transmission Line Fault Analysis Bhavish Kumar & Darren O'Neill, Transpower NZ Ltd
9.30am	Distribution development planning using a value-to-customer approach Mahmoud Saghaffar, Powerco Ltd	Introduction to the new EEA Asset Criticality Guide Eric Wolters, Independent Consultant	Field trial of three phase inline power regulators on the low voltage Network Dr. Terese Milford, Energex (EECON Conway Winner)	The Impact of Electrotechnical Standardisation on New Zealand Businesses and the World Rebecca Marx, Mitton Electronet Ltd & Mike Davies, Robinson Research Institute
10.00am	Planning a sustainable transmission service, maximising opportunities, minimising stranded assets Gerk Chen, Transpower NZ Ltd	Economic analysis of risks and asset replacement deferral Martin Hunt, EA Technology	Using High-Resolution Oscillography to Improve the Performance of Controlled Switching Transformers Brett Hamson, Schweitzer Engineering Laboratories Inc.	Will a Transmission Alternative work in your Network? Andrew Kerr, Powerco Ltd
10:30am	MORNING TEA			
	AUCKLAND 3 & 4			
	KEYNOTE SPEAKERS			
11.00am	Dr. Ruomei Li, Chinese Society of Electrical Engineering (CSEE), China (CIGRE) New Power System with Energy Internet - Addressing the challenge of climate change			
11.45am	Dr. Stuart Johnston, Principal Network Transformation, Energy Networks Australia (IET) Developing a distribution operating system that enables the future - a pathway forward			
12.30pm	LUNCH			
	PANEL SESSION			
2.00pm	Creating Access to Electricity Networks - Opportunities and Challenges Convenor: Jonathan Kay, Director Lone Wolf Enterprises	Panelists: Dr. Damir Novosel, IEEE (PES) Greg Skelton, CEO Wellington Electricity Dr. Stuart Johnston, IET/Energy Networks Australia		
3:30pm	BEST PAPER AWARD - HELD IN AUCKLAND 3&4			
4.00pm	CLOSE OF CONFERENCE - HELD IN AUCKLAND 3&4			