

# Conference Programme

TUESDAY, 9 SEPTEMBER 2025	
PRE-CONFERENCE WORKSHOPS - TE PAE	
9.00am	EEA, EECA & FlexForum Flex Day - Flexibility: Progress, Gaps, and Engaging Consumers
1.30pm	Connections Day Workshop: Part of the Streamlining Connections programme
9.30am - 5.00pm	EEA Substation Engineering Forum: Jointly hosted with Transpower
4.00pm	Young Professionals Networking Event
5.30pm - 7.30pm	TECHNOLOGY EXHIBITION OPENING AND SOCIAL FUNCTION

WEDNESDAY, 10 SEPTEMBER 2025	
7.00am	BREAKFAST - FROM INTENTION TO IMPACT: DIVERSE & INCLUSIVE LEADERSHIP
8.30am	REGISTRATION & TECHNOLOGY EXHIBITION OPENS
	AUDITORIUM
9.00am	CONFERENCE OPENING
9.30am	Keynote Address: <b>Thomas Ackermann, CEO, Energynautics GmbH</b>
10.00am	Panel Session: <b>Wired for 2035: Mapping the path to our future energy system</b> What will a resilient, affordable, and low-emissions energy system look like in a decade - and what must we prioritise today across planning, technology, regulation, the workforce and consumer enablement to get there?

10.40am	MORNING TEA IN TECHNOLOGY EXHIBITION			
	DOBSON 1	DOBSON 2 & 3	DOBSON 4	AUDITORIUM
	DEMAND FLEXIBILITY & CONSUMER EMPOWERMENT	INNOVATION IN ELECTRICITY INDUSTRY	ENERGY STORAGE & GRID RELIABILITY	FUTURE WORKFORCE & CAPABILITY BUILDING
11.00am	<b>FlexTalk - Open Communication Protocols: The key enabler of interoperability and Consumer Energy Agency.</b> Connie Dunbar & Stuart Johnston, EEA	<b>Is Now the Time? A Protection Revolution</b> Nathan Rich, DesignTech	<b>Use of pole top battery energy storage systems to stabilise voltages</b> Josh Van Rynbach, Kieran Orchard & Pema Choki, Powerco Ltd	<b>GirlBoss and Orion group: The strategic advantage of diversity, creating pathways for the workforce of tomorrow</b> Amy Johnston, Orion NZ Ltd
11.20am	<b>Bridging the Gap: Using Modbus to enable EV charger demand flexibility</b> Johnathon Green, Horizon Networks	<b>Enhancing safety, reliability, and resilience through collaborative design</b> Hamish Fleming, Orion NZ Ltd	<b>Sustainability in Aotearoa: A Holistic Approach to Solar and Renewable Energy</b> Pablo Daverio, Infratec New Zealand Ltd	<b>Building workforce capability in a transforming energy sector: Insights from the New Zealand Electrical Inspectors Association</b> Tony Doyle, Harmony Energy
11.40am	<b>The Flexible Edge: Powerco's approach to industrial decarbonisation</b> Brooke Wykes, Powerco Ltd	<b>Delivering real-world risk and control management outcomes using the control framework approach</b> Peter Standish & Graeme Webby, Risk Mentor	<b>Community batteries in Aotearoa: Opportunities, challenges, and learnings from across the ditch</b> Gareth McKay, Valen Power	<b>Empowering people to power the transition: Building workforce capability for grid-scale renewables and electrified transport</b> Lauren Faithfull, Mckay Ltd
12.00pm	<b>Developing distribution system operation (DSO) capabilities: Key to NZ's pathway to flexibility adoption</b> Moonis Vegani & Astad Kapadia, Counties Energy	<b>Moving to electronic competency cards</b> Liz Baker & Suzanne Harvey, Electronet Group	<b>An analysis of storage needed for large scale wind and solar power</b> Bryan Leyland, LCL Ltd	<b>From communities to kilowatts: Many paths to an electrified future</b> Hinerangi Pere, Orion NZ Ltd
12.20pm	LUNCH IN TECHNOLOGY EXHIBITION			

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Electricity Engineers' Association

TE PAE, CHRISTCHURCH  
9-11 SEPTEMBER 2025

**Electrifying Aotearoa**  
Today's innovation, tomorrow's system



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WEDNESDAY, 10 SEPTEMBER 2025

	DOBSON 1	DOBSON 2 & 3	DOBSON 4	AUDITORIUM
	LV NETWORKS & SMART GRIDS	ADVANCING RENEWABLE INTEGRATION	ASSET MANAGEMENT & INFRASTRUCTURE PLANNING	BIG DATA & DIGITAL TRANSFORMATION
1.30pm	<b>Autonomous control of electric devices</b> Dougal McQueen, Hyland McQueen Ltd	<b>Designing inverter based generation controls to ensure reliable anti-islanding protection</b> Sam Bird, Powerco Ltd	<b>Navigating the new landscape: Resource management reform and the future of electricity infrastructure</b> Jo Michalakakis, Align Limited	<b>Modelling solar wind data to provide short-term warnings of geomagnetically induced current trends</b> Brian Lin & Mia Biggs, Harmonic Analytics
1:50pm	<b>Analysing the impact of electrification of heat and transport on different distribution network archetypes</b> David Mills, EA Technology	<b>A design approach and technical considerations for onshore windfarm collector network designs</b> Sachin Chetty & Josh Burrows, ElectroNet	<b>Finding arc-free current-limiting dropout fuse that reliably and safely protects lines and transformers while not causing bushfires.</b> Andrew Laphorn, University of Canterbury & Goran Stojadinovic, TransNet	<b>Innovating asset management through AI: Case studies and practical insights from Orion</b> Jessica Napper, Orion NZ Ltd
2.10pm	<b>How Eneida's feeder mapping supports Counties Energy in their DSO journey</b> Joana Faria, Eneida.io Portugal & Astad Kapadia, Counties Energy	<b>Future proofing grid connections - applying learnings from Australia</b> Mark Mundell & Kevin Friesen, Beca Ltd	<b>Residential solar and energy storage: an analysis of economic benefit</b> Allan Miller, ANSA & Tim Crownshaw, EECA	<b>In a sea of generalised AI solutions, specialised AI systems will prevail as the most effective, trusted control room solutions</b> Mark Staubly, Expedium Consulting
2.30pm	<b>Beyond maximum demand: Real-time transformer monitoring in New Zealand's decarbonising grid</b> Yogendra Vashishtha, EA Technology	<b>Orchestrating CERs for grid stability</b> Jasjeet Singh & Melanie Levy-Hara, GE Vernova	<b>Practical design considerations when embedding generators to improve network resilience</b> Aubrey Liew Yat Pau & Sam Bird, Powerco Ltd	<b>Northpower's journey to using a risk-driven decision framework</b> Dane Boers, Modla Australia & Carlos Ulloa-Canales, Northpower
2.50pm	<b>Expanding the permitted voltage range: A case for modernising low voltage limits</b> Ben Aynsley, Westpower	<b>Network analysis following integration of IBRs into isolated mini-grid</b> Duncan Maina, Ankur Agarwal & Sinapati Tupou, AECOM	<b>Harmonic issues on tomorrow's electricity network - A real or perceived risk?</b> Rob Orange, Niko Engineering Ltd	<b>The application of national energy models to an Electricity Distribution Business demand forecast</b> Steven Simpson, Unison Networks
3.10pm	AFTERNOON TEA IN TECHNOLOGY EXHIBITION			
	DOBSON 1	DOBSON 2 & 3	DOBSON 4	AUDITORIUM
	CONNECTING GENERATION & LOAD TO THE GRID	ENERGY SYSTEM TRANSITION	INNOVATION IN THE ELECTRICITY INDUSTRY	NETWORK OPTIMISATION
3.40pm	<b>Power factors in the New Zealand power system</b> David Hume, Electricity Authority	<b>Transient rotor angle stability analysis of the New Zealand power system</b> Eranga Kudahewa, Transpower NZ Ltd	<b>Reliable detection of downed HV distribution lines using modern LV voltage monitoring equipment - A Case Study</b> Stephen Chiu & Sean Osborne-Curtis, Powerco Ltd	<b>Optimal supply and reticulation of large data centre loads</b> Gavin Austin, Ergo Consulting
4.00pm	<b>How not to cause a blackout in the digital substation - New testing and commissioning approaches</b> Maik Ufferhardt, Niko Engineering	<b>Enhancing TLC's OT Network: Strengthening security, reliability, and efficiency with OT-SDN technology</b> Rajnishwar Singh & Warren Harris, The Lines Company	<b>Transforming transmission asset maintenance with machine learning: Optimised forecasting for tower painting costs</b> Brian Cleary, Transpower NZ Ltd	<b>A "load" of incentives</b> Andrew Smaill & Richard Steer, Wellington Electricity
4.20pm	<b>Power system black start of a large, isolated power system</b> Laurie Curro, Curro Consulting	<b>Condition assessment of bushings using DFR</b> Lars Jonsson, Hitachi Energy Sweden	<b>AI-driven fault prediction &amp; localised leveraging centralised monitoring &amp; protection &amp; control data</b> Jesse Koskela, Eneryield & EcoPhi	<b>Revitalising the grid: Lessons from the Islington SVC3 refurbishment</b> Michael Dalzell, Transpower NZ Ltd & Jake Williams, Amplitude Consultants
4.40pm	<b>What generators really want - A dummies guide to grid connection</b> Brad Henderson, Lodestone Energy	<b>Cybersecurity in ever more digital substations</b> Tibor Congo, OMICRON	<b>AI-Powered flexible exports: learnings from the deployment of end-to-end grid edge flexibility</b> Brad Smith, Gridsight	<b>Supporting electrification and decarbonisation through collaboration, engagement and innovation</b> Eric Sng & Rijin John, PowerNet Ltd
5.30-7.00pm	SOCIAL FUNCTION HELD IN TECHNOLOGY EXHIBITION			

# Conference Programme

## THURSDAY, 11 SEPTEMBER 2025

	DOBSON 1	DOBSON 2 & 3	DOBSON 4	AUDITORIUM
	ADVANCING RENEWABLE INTEGRATION	BIG DATA & DIGITAL TRANSFORMATION	ASSET MANAGEMENT & INFRASTRUCTURE PLANNING	DEMAND FLEXIBILITY & CONSUMER EMPOWERMENT
8.30am	<b>Distributed generation writ large - Connecting the 47MWac Lauriston Solar Farm</b> Pete Armstrong, Dewalt Venter & Jonathan Hunsley, EA Networks Ltd	<b>Towards automating power quality analysis in an evolving network</b> Dazzle Johnson & Robin Pittwood, Powerco Ltd	<b>Electricity distribution 2055 - Forecasting an uncertain future</b> Michael O'Brien & Laura Chimside, Powerco Ltd	<b>Peak demand, consumer acceptance, and energy equality: Considerations for demand-side management</b> Baxter Kamana-Williams, University of Canterbury
8.50am	<b>Utility-scale DG integration: Powerco's technical framework</b> Gabriel Lim & Annie Welvaert, Powerco & Edgar-John Kleinveld, Transpower	<b>Sweating the data: Three ways companies are diving deeper to understand asset performance and risk</b> Jules Congalton, Asset Dynamics Ltd	<b>Revitalising the old: Maintenance innovation as the key to energy availability</b> Emily Adams, Meridian Energy	<b>Quantifying the potential for industrial demand-side flexibility in the New Zealand Electricity Market</b> Brian Moore & Marasinghe Kanchana, Jacobs NZ
9.10am	<b>Enhancing grid hosting capacity for integration of renewable energy resources and sustainable loads with Hitachi Energy C-LVR</b> Ngan Le Thi, Hitachi Energy	<b>From demand to delivery: National distribution network modelling and the role of flexibility in avoiding £8 billion in reinforcement</b> David Mills, EA Technology	<b>Vulnerability of existing power assets due to increasing seismic load demand and liquefaction risk - Case study of Rangipo Substation</b> Sajjad Anwar, AECOM NZ	<b>How a new approach to a technology challenge unlocked shared value across the electricity industry</b> Adrian Lobb, Powerco Ltd
9.30am	<b>Resolving reverse power flow using current-dependent setpoint for voltage control within decentralised grid generation plants at Northpower Ruawai 5MVA Substation</b> Jose Lumbea & Bryan Dimayuga, Northpower Ltd	<b>The use of graph database to create and simplify network models</b> Alex Castellanos, Unison Networks	<b>Break &amp; Learn: What we learnt from intentionally snapping timber poles?</b> Mitch Graham, Unison Networks	<b>Market designs and development for flexibility services</b> Yogendra Vashishtha, EA Technology
9.50am	<b>Transient voltage stability assessment in MV distribution networks with multiple utility-scale solar farms connected to strong and weak networks</b> Mufid Altork, Ergo Consulting	<b>Detecting hot water loads using smart meter data for resilient retailer-distributor load management</b> Bryan Choi, Orion NZ Ltd	<b>Extending the life of critical assets - Implementation of disconnecter maintenance and refurbishment programmes</b> Nigel Shirley & Violet Penty, Westpower	<b>Bridging the Gap: Aligning New Zealand's regulatory frameworks with evolving technical standards for demand flexibility and smart devices</b> Stuart Johnston, EEA & Peter Berry, President, NZ IEC National Committee
10:10am	<b>MORNING TEA IN TECHNOLOGY EXHIBITION</b>			
	<b>AUDITORIUM</b>			
11.00am	Keynote Address: <b>Lynne Gallagher</b> , Board Member, Australian Energy Regulator (AER), and former CEO, Energy Consumers Australia			
11.30am	Panel Session: <b>Power to the People: Engineering the energy transition for consumers</b> To deliver a successful energy transition, we must design systems that empower and include consumers from the outset. This panel explores how the electricity supply industry could turn aspiration into action—through planning, technology, standards, and partnerships that ensure consumers aren't just passive users, but active participants in shaping a safe but smarter, fairer energy future.			
12.20pm	<b>EEA Awards Ceremony</b>			
12.40pm	<b>LUNCH IN TECHNOLOGY EXHIBITION</b>			

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	DOBSON 1	DOBSON 2 & 3	DOBSON 4	AUDITORIUM
	EXTENDING THE LIFE OF LEGACY ASSETS IN THE ENERGY TRANSITION	CONNECTING GENERATION & LOAD TO THE GRID	INNOVATION IN THE ELECTRICITY INDUSTRY	BIG DATA & DIGITAL TRANSFORMATION
2.10pm	<b>Understanding wood decay fungi attack in crossarms to improve detection and asset health modelling</b> Danneilea Richardson, Powerco Ltd	<b>Verification of voltage transformer performance for power quality applications</b> Tibor Congo, OMICRON	<b>Network Digital Twins - Providing Powerful Insights</b> Mark Spinks, Gridvision	<b>Reduced asset failure, maintenance costs, and increased resilience through data collaboration</b> Roger Clary, Vector Ltd & Esmaeil Alizadeh, Via Science
2.30pm	<b>Developing secondary system upgrades: A case study of the Waitaki 110V DC distribution upgrade</b> Williams Thomas, Meridian Energy	<b>Collaborative long-term bulk supply network planning for the Western Bay of Plenty region</b> Keith Edmonds, Powerco Ltd, Edgar-John Kleinveld & David Strang, Transpower	<b>Navigating compliance and security in the energy sector: Creating a secure data management framework to unlock insights from restricted datasets</b> Sophie Burgess, Powerco Ltd	<b>Harnessing big data: AI-driven transformation in overhead line defect detection</b> Brian Cleary, Transpower NZ Ltd
2.50pm	<b>Smart meter control for load management</b> Una Drayton & Dylan Jenkins, PSC Consulting	<b>Streamlining the system operator generation commissioning and testing process - Faster integration of renewable energy resources</b> Anna Li, Transpower NZ Ltd	<b>Branching out: Satellite solutions for powerline safety</b> Chris Withey, Unison Networks	<b>HV Earth Testing - Is your data useful?</b> Patrick Coombe, ElectroNet Ltd
3.10pm	<b>Local experience using frequency domain reflectometry to test and diagnose the condition of power cables</b> Gary Catlin, HV Diagnostix	<b>Connecting large renewable generation to the distribution network utilising smart meter data</b> Neehara Janapriya, The Lines Company & Ben McCoy, Gridsight	<b>Grid resilience-successful innovation adoption on protection projects</b> Sean Fletcher, Transpower NZ Ltd	<b>How risk metric selection drives infrastructure investment decisions in New Zealand networks</b> Logan Brunner, Urban Intelligence
3:30pm	CLOSE OF CONFERENCE IN AUDITORIUM			



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